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POST-EXCAVATION ASSESSMENT

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EAST WIDEOPEN FARM, WIDEOPEN, NORTH TYNESIDE, POST-EXCAVATION ASSESSMENT

on behalf of

Bellway Homes Ltd.

Project No.: 1255

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EAST WIDEOPEN FARM, WIDEOPEN, NORTH TYNESIDE
POST-EXCAVATION ASSESSMENT REPORT

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Summary

This document presents an assessment of the combined results of archaeological mitigation works carried out on land at East Wideopen Farm, Wideopen, North Tyneside (NGR NZ 2452 7270). This report has been prepared by Northern Archaeological Associates Ltd (NAA) for Bellway Homes Ltd. The archaeological mitigation works were required as a condition of planning permission for development of the land as part of the Five Mile Park housing scheme. The development site comprised an irregularly shaped plot of land of approximately 0.6 hectares, situated to the north of the existing housing development of Five Mile Park. Prior to the investigations, the plot of land had been occupied by a post-medieval farmhouse, which was demolished.

Remains of an enclosed Iron Age/Romano-British settlement and an associated field system were recorded during the archaeological excavation. Evidence for occupation was discovered in the form of truncated curvilinear features that formed the remains of ring-gullies associated with a sequence of roundhouses. These, and a small number of potentially contemporary pits, postholes and two possible cremation burials, were mostly enclosed within a sub-rectangular enclosure that also had a sequence of internal partitions defined by further ditches. Also uncovered were the remains of post-medieval stone and brick buildings which were part of the farmhouse that was extant prior to the commencement of the archaeological excavation.

Artefacts recovered included: an assemblage of handmade and post-medieval pottery, building material, industrial waste, glass, animal bone (including two animal burials) and metal objects. Environmental samples were also taken from a selection of the recorded features.

Due to the significance of the results of the mitigation works, and in line with regional and national guidelines, the results of the investigations should be published within a regional journal.

1.0 INTRODUCTION

1.1 This document presents an assessment of the results of archaeological mitigation works carried out at East Wideopen Farm, Wideopen, North Tyneside (NGR NZ 2452 7270; Fig. 1). The document has been prepared by Northern Archaeological Associates Ltd (NAA) for Bellway Homes Ltd and forms part of the archaeological mitigation, approved by the archaeological advisors to Newcastle City Council (Morrison 2016), as an element of the planning consent for the development. This report comprises a post-excavation assessment in line with current national standards and guidance outlined by English Heritage (2008a; 2008b), Historic England (2016) and the Chartered Institute for Archaeologists (2014a; 2014b; 2014c).

1.2 The East Wideopen Farm investigations were undertaken in a small area that was part of a much larger development. Previous investigations associated with the Five Mile Park development included:

- in 2009, an archaeological evaluation was conducted by Tyne and Wear Museum Archaeology (TWMA) to the south of a dismantled railway (Frain 2009a);
- in 2011, a heritage statement was produced by Archaeo-Environment Ltd specifically for the East Wideopen Farm buildings previously within the current mitigation area (Hardie 2011);
- in 2012, a desk-based assessment was produced by TWMA, which investigated the areas to the north and south of this farmhouse (Richardson 2012);
- also in 2012, a geophysical survey and archaeological evaluation was conducted by TWMA, which investigated the same areas as the above desk-based assessment (Muncaster 2013; Scott 2012);
- also in 2012, an excavation was conducted by Archaeological Services Durham University (ASDU) focusing on an enclosure found by the 2009 TWMA evaluation to the south of the dismantled railway (ASDU 2014);
- in 2014, an archaeological watching brief was undertaken within a small area close to the centre of the development area (ASDU 2015);

- in 2015, building recording was conducted by Northern Archaeological Associates (NAA) upon the East Wideopen Farm and its associated buildings (NAA 2016a); and

- also in 2015, an excavation was conducted by NAA within a field to the north of the dismantled railway and to the south of the farmhouse (NAA 2016b; Fig. 2).

1.3 This document will refer to both phases of the NAA excavations at the site as East Wideopen Farm. They will be distinguishable as phases 2016 and 2017. Figure 2 shows the locations of both phases of excavation at the site.

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

2.1 The area investigated during this phase of groundworks comprised an irregularly shaped plot of land, approximately 0.6ha in size, situated to the east of Wideopen village (Fig. 1). The site was bounded to the west by a fence associated with an adjoining property. To the north and east was the northern extent of the development area. A bridle path that linked the village with the remains of the Seaton Burn Waggonway, now utilised as a cycle path, formed the southern limit of the excavation. To the south of the bridle path was the area previously investigated by NAA (NAA 2016b). The site was previously occupied by a post-medieval farm (East Wideopen Farm), which had been demolished prior to the works commencing.

2.2 The site was at an average height of c.65m above Ordnance Datum (AOD), sloping downwards towards the south.

2.3 The solid geology consists of Mull Dyke-Swarm and the Pennine Middle Coal Measures formation, overlain by Devensian till (BGS 2017).

3.0 SUMMARY ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Below is a brief summary of the archaeological and historic background of the development site, compiled from reports associated with the previous phases of work detailed above.

Prehistoric

3.2 Due to the presence of a post-medieval farmhouse and associated buildings, no previous evidence of prehistoric or Romano-British activity had been recorded within the East Wideopen Farm site. However, such activity was evident both locally and within the wider area (Richardson 2012, 7). Some level of Bronze Age activity within the vicinity of the development was evident from the discovery of a Bronze Age spearhead approximately 570m to the south-west (HER 780) in the 1950s (Richardson 2012, 6).

3.3 A growing number of Iron Age and Romano-British settlements have been discovered in the region through developer-funded investigations (Haselgrove *et al.* 2001; Petts and Gerrard 2006, 135). In combination with those excavated prior to the advent of PPG 16 and those identified through aerial photography, these sites suggest that the lowlands of north-east England, including south-east Northumberland, was a densely utilised landscape. Settlements have been recorded within the wider local area including sites at East and West Brunton (Hodgson *et al.* 2012), Gardener's Houses (Biggins *et al.* 1997), Brenkley (Frain 2009b) and Burradon (Jobey 1970).

3.4 Two Iron Age settlements and associated field systems were recorded during previous phases of investigations within the wider Five Mile Park development area (ASDU 2014; NAA 2016b). During the evaluation undertaken by TWMA (Frain 2009a), ditches and gullies were recorded, which were most likely associated with a potential Iron Age/Romano-British enclosure that was visible as a cropmark on aerial photographs. This enclosure was located in a former playing field situated to the south of a dismantled railway, in the southern half of the wider development area. A subsequent archaeological strip, map and record investigation undertaken by ASDU demonstrated that these remains were in fact part of an enclosed settlement and a field system that extended to the south and east.

3.5 An excavation conducted by NAA between October 2015 and February 2016 (NAA 2016b, 41) uncovered another enclosed settlement and associated field system to the north of the site excavated by ASDU (Fig. 2). This second area of occupation was within a former field to the north of the dismantled railway and the south of the East Wideopen Farm site.

3.6 Two rectilinear cropmarks enclosures, identified by the previous phase of excavations (NAA 2016b, 3) approximately 300m to the north of the wider development area (at

NGR NZ 2462 7306 and NZ 2464 7312; Fig. 1), suggest that further, potentially contemporary, settlements exist in the local area.

3.7 More significantly two sets of cropmarks were identified through the DBA conducted by TWMA (2012, fig. 9 and 10). They consisted of a large subdivided rectilinear cropmark with associated interior cropmarks and a circular cropmark to its immediate south (at NGR NZ 2437 7254 and NZ 2442 7261; Fig. 1). These may represent a settlement centre with the enclosed settlements recorded by ASDU (2014) and NAA (both phases 2016 and 2017), as well as the above mentioned cropmarks to the north representing satellite settlements, focused around a central enclosure.

Roman period

3.8 There was no previous evidence for Roman activity on the site. Whilst the prehistoric settlements surrounding the site are likely to have been active from the Iron Age into the Romano-British period, the evidence for any Roman period activity tends to only come from the artefacts recovered during excavation. For example, Jobey's (1970, 78) excavation of an Iron Age settlement at Burradon recovered only nine sherds of Roman pottery comprising 'perhaps no more than three vessels'.

3.9 The excavations conducted in the development area by ASDU (2014, 64, appx. 1, table 1.2) recovered several pieces of Roman BB1 and mortarium and excavation conducted by NAA at the Five Mile Park development site between 2015 and 2016 recovered some Roman pottery (NAA 2016b, 11). A number of other Roman artefacts were recovered from NAA's 2015 excavations, including a fragment of glass (*ibid.*, 9), some possible opus spicatum forming part of a single brick (*ibid.*, 40, appx. G) and a rotary quern likely of the Romano-British period (*ibid.*, 38, appx. E). Whilst these finds do not denote the site itself as intrinsically Roman, they certainly point to contact with Roman activity in the local area.

Medieval

3.10 Although early medieval settlement is well documented in the area of North Tyneside and southern Northumberland (e.g. Muncaster and Bidwell 2014), no early medieval sites or finds were recorded within the development area.

3.11 The site once lay within the township of Weetslade (Wrathmell 1976), a member of the barony of Morpeth or Merlay. The Heselrig family owned land at South Weetslade from the 13th century until 1763, when it was sold to Charles Brandling and Matthew Duane (Richardson 2012, 8).

3.12 Ridge and furrow uncovered during the current phase of works appeared to be the continuation of a field system identified during trial-trenching south of the dismantled railway (Muncaster 2012, 11). This system seemed to extend into the fields north of the dismantled railway and into the previous phase of excavation.

Post-medieval and modern

3.13 An estate plan of 1757 depicts a property named 'Greenshouses' occupying the East Wideopen Farm site. A field to the immediate north and east bore the name 'Wide Open', with the field to the south, which comprised the previous phase of excavations, called 'Low Ridges' (Richardson 2012, 8). The depicted farm buildings were in a linear hearth-passage/longhouse arrangement, which was common in the late 18th and 19th centuries (NAA 2016a, 11). During the current phase of excavations, foundations that conformed roughly to this arrangement were recorded.

3.14 A desk-based assessment conducted by TWMA used map regression to show changes to the surrounding area, focusing mainly on a colliery c.200m to the south of the current site (Richardson 2012). From this, changes to the farmhouse could be seen, most notably between a tithe map of 1842 and the First Edition OS plan where what appears to be a gin gang was added. Such structures were circular wheel houses that housed horse driven mills. At the East Wideopen Farm, the gin gang was added to the eastern side of a north-south aligned byre to the immediate north of the farmhouse. This byre was likely to have been used as a threshing barn (Hardie 2011, 14). The 1897 OS map showed the gin gang had been removed by this date.

3.15 A new farmhouse was built on the south-east corner of the western foldyard, most likely between 1858 and 1870. In addition, a stable was added to the immediate east of the farmhouse. This structure appeared to have been purpose built for horse breeding, which was common at that time, and may be related to the presence of the gin gang (NAA 2016a, 13).

3.16 Post-medieval ridge and furrow ploughing was recorded to the immediate north of East Wideopen Farm. Despite its destruction through modern ploughing (Richardson 2012, 8), it was identified by both a geophysical survey (Scott 2012) and subsequent evaluation trenches (Muncaster 2012). These investigations indicated it was of post-medieval date (Scott 2012, 7).

3.17 Wideopen Colliery was sunk in 1825. It was unusual in the area due to the size and shape of its wagons; like those of Fawdon colliery, they were rectangular and smaller than other collieries in the region. In 1826, the Fawdon Waggonway was constructed to transport coal to the River Tyne. It ran east to west c.317m to the south of the site along the same line as a modern track. In 1837, a branch line from Wideopen to Seaton Burn opened that followed the same line as a modern cycle path to the east of the site, which runs north-northwest to south-southeast (Richardson 2012, 9).

3.18 During the previous phase of excavations, the wall footings, supports and the exterior stokehole for a boiler were uncovered, which appear to have been part of a previously unknown winding engine associated with the colliery. This winding house is shown on a tithe map from 1842 but not on the First Edition OS map from 1858 (NAA 2016b, 31). The colliery is recorded as closing in 1860, as it was unprofitable (Richardson 2012, 9).

4.0 AIMS AND OBJECTIVES

4.1 The principal aim of the archaeological works was to identify all unrecorded sub-surface archaeological remains within the development area and secure their preservation by record prior to their destruction by development works. In order to achieve this, a programme of strip, map and record investigation was undertaken, according to the specification issued by the Tyne and Wear Specialist Conservation Team (Morrison 2016).

4.2 The main objectives of the archaeological investigations were:

- to establish the nature, extent, degree of preservation and date of any archaeological remains within the site;
- to provide a detailed record of any such archaeological remains;

- to recover and assess any associated structural, artefactual and environmental evidence;

- to undertake a scheme of works that conformed to national and regional professional standards for archaeological excavation (CIfA 2014a; 2014b; 2014c; English Heritage 2008a; 2008b; Historic England 2016);

- to prepare an illustrated report of the results of the excavation, which characterises the nature, extent, date, significance, stratigraphic sequence and spatial patterning of the archaeological remains. This report is to be deposited with both the Tyne and Wear Historic Environment Record and the National Monuments Record;

- to prepare a report on the results of the excavation, which is to be published in a local, regional or national journal, as appropriate;

- to deposit the material archive with Tyne and Wear Archive and Museum (TWAM; the Great North Museum Hancock); and

- to address relevant components of the relevant research frameworks (Petts and Gerrard 2006; Symonds and Mason 2010; Blinkhorn and Milner 2013);

5.0 METHODOLOGY

Excavation

5.1 The excavation works comprised a strip, map and record investigation. The removal of overburden (topsoil, subsoil and material from the demolition of the farm) was undertaken using a mechanical excavator fitted with a toothless or ditching bucket all soil removal was under archaeological supervision and the soils were stored at a safe distance from the excavation areas (Morrison 2016, 3).

5.2 Mechanical excavation ceased where significant archaeological deposits were identified by the monitoring archaeologist, or where natural subsoils were reached, whichever was encountered first (Plate 1). Thereafter, all archaeological work, including cleaning selected areas, was undertaken by hand.

Plate 1: mechanical stripping of the demolition material on the site, revealing natural and archaeological deposits.

Hand excavation

5.3 Where structures, finds, soil features or layers of archaeological interest were exposed, the archaeologists cleaned, assessed, excavated by hand, sampled and recorded these features as appropriate or as agreed with the county archaeologist and/or science advisor for Historic England (Morrison 2016, 7).

5.4 Hand excavation of archaeological features (where encountered) was undertaken in order to characterise the site's archaeology and ensure recovery of artefactual and environmental evidence. In particular, hand excavation concentrated on intersections of features to help determine phasing and also on examining a representative sample of the different types of features encountered. Hand excavation comprised:

- 100% excavation of any features of ritual or ceremonial nature (including burials);
- up to a 50% sample of domestic, industrial, or settlement-related features; and

- a sample of up to 20% of the overall length of linear features with slots (a minimum of 1m in width).

Plate 2: hand-cleaning of areas to indicate suitability for full or partial, selective excavation.

Recording

5.5 Written descriptions of all archaeological contexts were recorded on pro forma sheets using the NAA context recording system. Harris Matrices were produced for the site. The context catalogue is reproduced in Appendix A.

5.6 Drawn records of all archaeological features were produced at an appropriate scale. Sections, plans and elevations were drawn at a scale of 1:10 and 1:20. Drawings included appropriate data on levels relative to Ordnance Datum. Drawings were located within the site and the National Grid using sub-centimetre GPS.

5.7 A photographic record of the site and any archaeological features was taken using monochrome prints at a minimum format of 35mm and a digital SLR camera at a minimum resolution of 12 megapixels.

Finds recording

5.8 All finds processing, conservation work and storage was carried out in compliance with guidelines issued by the Chartered Institute for Archaeologists (CIfA 2014c). Artefacts and animal bone were collected as bulk samples. Significant artefacts were three-dimensionally recorded prior to removal. Finds were appropriately recorded and processed, and submitted for post-excavation assessment.

5.9 All recovered finds were appropriately packaged and stored under optimum conditions. Finds recovery and storage strategies were in accordance with published guidelines (CIfA 2014a; Watkinson and Neal 2001).

Environmental sampling

5.10 Forty-litre bulk palaeoenvironmental samples were taken from appropriate deposits and submitted to the named environmental specialist for assessment of the environmental potential. This included charcoal, small bones, cereal grains, molluscs and macro-environmental material. Recovery and sampling of environmental remains was in accordance with published guidelines (Campbell *et al*. 2011).

5.11 In consultation with the Historic England science advisor for the northeast of England, a series of up to five, 20 litre bulk palaeoenvironmental samples were taken from the terminals of any ring-ditches. This was carried out in order to provide location data on any palaeoenvironmental/artefactual deposits.

Date sampling

5.12 Specific samples from secure contexts were identified for radiocarbon dating as appropriate (whether on site or as sub-samples of processed bulk samples).

6.0 RESULTS

6.1 The following section describes in detail the results of the excavation by phase and feature type. These results will then be discussed in Section 7.

6.2 The strip, map and record exercise carried out at East Wideopen Farm revealed evidence for occupation activity in the form of ring-ditches, shallow gullies, enclosure ditches, and ditches possibly relating to a contemporary field system (Fig. 2). The

remains of post-medieval (stone and brick) buildings relating to the farmhouse were also uncovered. The farmhouse buildings and service trenches had truncated much of the prehistoric archaeology within the site but, conversely, the presence of the farm had also saved it from deep modern 'sub-soiler' ploughing methods, or other types of modern land usage/development up until the point of the current development. As a result, the preservation of the prehistoric archaeological deposits was in general relatively good.

6.3 Based on the evidence from interventions in the above archaeological features, two broad phases of activity have been identified. The first phase comprises the Iron Age/Romano-British features; the post-medieval remains form the second phase. It was apparent, however, that the Phase 1 remains comprised a sequence of occupation with many intercutting ditches and ring-gullies suggesting longevity of use. A more detailed phasing of these changes will be achievable with radiocarbon dating. The specialist data provided in Section 9 has been incorporated into the following phases.

6.4 In general, the phase 1 remains included a sub-rectangular enclosure (formed by ditches **3934** and **3935**; Fig. 3) set within and aligned with reference to a system of fields recorded largely during the previous phase of archaeological works (NAA 2016b) but visible in these excavations as ditch groups **3937** and **3938**, with ditches **3136**/**3171** and **3892** also possibly forming a part of this system (Figs. 2, 3 and 4). Then the larger main enclosure (formed by ditches **3932**, **3933** and **3936**) was installed on top of the earlier enclosure ditches. The majority of the ring-gullies recorded seemed to have been prior to the main enclosure and may have been part of an unenclosed settlement with the possible exception of ring-gully **3179**.

6.5 The field system ditches will be presented first, followed by the earlier enclosure ditches and then the ring-ditches. Finally, the main enclosure ditches and any associated discrete features will be presented. Whilst there is little difficulty in dividing the enclosure ditches into separate phases, the ring-ditches prove more complicated. Most appear to conform to the earliest stage of enclosure or perhaps unenclosed settlement, with one or two appearing to be part of the later phases. It is possible that other ring-gullies have been destroyed, either through later use of the site or by truncation during the construction of the post-medieval farmhouse.

6.6 The second phase of activity at the site comprises the post-medieval features that were recorded. In general terms, this phase is denoted by the presence of ridge and furrow

features running east to west across the site and also by the post-medieval/modern farm and its associated buildings/structures. Some discrete features from across the site can also be attributed to this phase, most notably some animal burials and the circular trackway from a gin gang.

Prehistoric remains

Field system

6.7 The only features attributable to the field system were ditch groups **3937**, **3938** and possibly ditches **3136**/**3171** and **3892**. In consultation with the County Archaeologist and the Scientific Advisor for Historic England, a sample of 20% of the total length of these ditches was excavated as per the specification for the excavation (Morrison 2016, 7). It is important to be aware that the classification of these features was partly based on the alignment and form of the field system from East Wideopen Farm 2016 (NAA 2016b, 8-11); from this it is not unreasonable to assume that they constitute part of the same field system. Due to the relatively limited size of the excavation, a more detailed understanding of this potential field system was unobtainable, including its relationship with any other occupation deposits. The field system ditches were not directly stratigraphically associated with any other prehistoric features and produced no dating evidence.

6.8 The type of field system that these ditches formed a part of is unclear; however, in comparison to that of the field system from East Wideopen Farm 2016, it is possible that ditch groups **3937** and **3938** formed a trackway or droveway, with ditch **3136**/**3171** being an offshoot from this (Fig. 3). The droveway from East Wideopen Farm 2016 measured 15.4m wide between ditch groups **195** and **196** (NAA 2016b, 28); however, the distance between ditch groups **3937** and **3938** was more than double that, at c.36m. With this in mind, it is possible that these ditches are further examples of possible the 'ladder' field system from East Wideopen Farm (NAA 2016b, 10), as opposed to forming a droveway, with ditch **3136**/**3171** being an internal partition that possible formed a paddock.

Plate 3: section through field system ditch group 3938, facing south-east.

Group 3938

6.9 Ditch group **3938** was the most complete of these ditches, observed to a length of 46.64m, with an average width of 1.57m and an average depth of 0.61m. These averages are, however, slightly misleading, as the ditch was heavily truncated by a post-medieval boundary ditch and by the farm buildings, as well as exiting the limit of the excavations for approximately 11.5m underneath a partly demolished stable block (Figs. 3 and 4).

6.10 Ditch **3938** was aligned west-northwest to east-southeast and had a wide V-shaped profile with a rounded base (Fig. 6, sections 1 and 2; Plate 3). This changed to a U-shaped profile to the west at **3309**. The ditch contained two fills throughout. The lower was a light, yellow brown sandy clay mottled with grey clay, while the upper was a mid to dark grey brown silty mixed clay. In the north of the site, at ditch section **3309**, the lower fill was much shallower, whilst the upper was unchanged. It is likely that the lower fill represented a series of colluvial silting events that accumulated after the ditch had gone out of use, with the upper fill being a much later event.

6.11 There were no significant artefacts/ecofacts retrieved from ditch group **3938**, although both fills produced small amounts of charcoal with a small fragment of fired clay from deposit **3311**, which was likely to be a later intrusion.

6.12 Ditch group **3938** was truncated by a post-medieval boundary ditch **3199/3231** that ran east-west, cutting **3200** and **3236** respectively. There were also a number of field/service drains that truncated the ditch.

Group 3937

6.13 Ditch group **3937**, also aligned west-northwest to east-southeast, ran for 22.38m from close to the eastern site boundary, stopping at terminal end **3734** approximately 3.5m to the east of ditch group **3933** (Fig. 6, section 3; Plate 4). It is possible that these two ditches were in contemporary use. It had an average width and depth of 1.59m and 0.57m respectively. Again, as with ditch group **3938**, these averages are misleading, as the area to the immediate south had suffered heavy truncation from the post-medieval farm buildings. As a result, ditch **3937** was situated on a step bank sloping down to the south. It was fully truncated at its eastern extent, approximately 1.3m from the site boundary (Figs. 3 and 4).

6.14 Ditch group **3937** had a wide V-shaped profile, but unlike **3938** the base was more pointed. The profile of the ditch widened towards the west as the level of truncation from the farm buildings reduced. The ditch contained two fills, the lower being a shallow dark grey clay and the upper a dark grey brown silty clay. Both described sequences of natural silting following disuse of the ditch. The difference between the deposits in ditch groups **3937** and **3938** may point to a different period of activity.

6.15 No artefacts were found in ditch **3937**. Coal fragments were recovered from all of the samples taken from the ditch apart from **3722** and **3781**. In addition, **3735** and **3736** both produced a single seed. The ditch was partly truncated by a post-medieval furrow, running east-west across the site, at interventions **3679**, **3723** and terminal **3734**, which was also disturbed by modern/post-medieval activity that likely related to culvert **3211** to the north.

Plate 4: western terminal of ditch group 3937, facing southeast.

6.16 Aligned perpendicularly to **3937**, ditch **3136/3171** ran from the eastern site boundary for 14.7m and was truncated to the south by a modern man-hole, as well as possible post-medieval posthole **3173**. Like ditch group **3937**, it was heavily truncated by post-medieval farm buildings in the south of the site. Ditch **3136/3171** had an average width of 0.99m and an average depth of 0.26m.

6.17 Both interventions **3136** and **3171** had a shallow, wide, U-shaped profile with a single mid brown grey, silt clay fill. No artefacts were recovered from the ditch; although fill **3172** produced a small coal fragment, it was not significant to the interpretation of the deposit or the ditch.

6.18 The relationship between ditch group **3937** and ditch **3136/3171** could not be determined due to modern truncation. However, based on their position and alignment, it seems plausible that they were related in forming part of the field system surrounding the enclosure. It is worth noting that the fills within ditch group **3937** are not very similar to those in **3938**, possibly indicating that these two ditches were open and/or used for different purposes.

6.19 It is possible that ditch **3892**, which entered the site from the south and was cut by ditch **3932** segment **3873**, together with ditch **3125/3135/3066**, which entered the site from the north having been truncated by post medieval ditch segment **3127**, and the western portion of ditch group **3935** formed a north-south field system boundary ditch. If this were the case, ditch group **3938** is likely to have intersected or have been intersected by it to the north, beyond the bounds of the site. This cannot be substantiated, however, as there is no direct stratigraphic relationship between these ditches. In addition, the alignments of these three ditches do not fully correspond with each other. It is certainly possible that ditch **3892** represented a continuation of the enclosure ditch(es) (groups **750** and **822**) from the north-western corner of East Wideopen Farm 2016 (Fig. 2; NAA 2016a, 13-5, 23), which would mean that the enclosure from East Wideopen Farm 2016 pre-dates the main enclosure from East Wideopen Farm 2017.

Earlier enclosure ditches

6.20 As indicated above, the main enclosure on the site consisted of the last enclosure ditch events (**3932**, **3933** and **3936**). This will be presented below, however; a number of earlier enclosure ditches were also present on the site, which made up partly enclosed and open settlement phases.

6.21 Ditch group **3935** ran north-northeast to south-southwest in the western part of the site from immediately north of culvert **3298** to immediately west of culvert **3029** (Fig. 4). It had a very similar route to ditch **3936**, turning east-west towards ring-gully **3609**; however, it turned north before following a similar route to **3934** to form a rectangular sub-enclosure, instead of south towards **3932**. Ditch **3934** ran from ring-gully **3609** northwards toward enclosure ditch **3933**; however, these ditches were not contemporary. Curvilinear ditch **3939** at the very north of the site may have formed some sort of enclosure to the north of **3934**, although it was impossible to define clearly due to the heavy post-medieval truncation in that area.

Group 3934

6.22 Ditch **3934** ran south-southwest from its terminus **3370** for approximately 22.2m through ditch segments **3381**, **3427** and **3444**, turning south-east from segment **3645** for approximately 3.6m, before terminating at **3659** (Fig.4 and 5). It was truncated by the eastern arm of ditch group **3935** at segments **3444** and **3427** (cut by **3449** and

3426 respectively). Ditch segment **3645** was truncated by ditch **3936** segment **3617**. Southern terminus **3659** truncated curvilinear gully segment **3667** (filled by **3668**, Fig. 5), which ran south from here following the outer edge of ring-gully **3609** (see para. 6.52).

6.23 Ditch group **3934** had no visible association with any of the existing ring-gullies, as ditch **3935** had truncated any potential relationship between these features. However, it is likely that ditch **3934** was contemporary with some of the surviving ring-gullies. Ditch **3934** can be shown to be later than ring-gully **3609**, as **3934** segment **3659** cut curvilinear gully segment **3667** (Fig. 7, section 15). This gully in turn cut ring-gully **3609** at segment **3839** (cutting **3844**; Fig. 6, section 14).

6.24 As well as some disturbance from service trenches, ditch **3934** was truncated twice by post-medieval gin gang **3261** at segment **3427** and just north of segment **3381** (Fig. 5). In addition to this, culvert **3211** truncated ditch **3934** to the immediate south of segment **3444**.

6.25 Ditch group **3934** had a narrow, shallow V-shaped profile with a rounded base, apart from at terminus **3659**, which had a wide U-shaped profile. The ditch was filled by a series of sedimentary deposits without any backfill events. It measured approximately 1.11m in width and 0.38m in depth; however, these averages are skewed slightly by the truncation from ditch **3935**.

6.26 A piece of bone and a fragment of fired clay were recovered from the single fill (**3660**) of the southern terminal of ditch **3934**. A large quantity of industrial waste was recovered from **3371**, the fill of northern terminal **3370**. This has been identified as a mixture of natural geological material and clinker (Appendix G). Coupled with the 8.1g of coal recovered from deposit **3384** (fill of ditch terminus **3370**), this could suggest domestic industry being conducted on the site.

Group 3935

6.27 Ditch group **3935** formed a rectangular enclosure, with internal measurements of approximately 22.9m by 13.2m. This appeared to have been open to the north, with terminal **3170** to the north-west and terminal **3368** to the northeast (Fig. 4). Terminal **3368** was cut by segment **3395** of ditch **3933**. Ditch **3935** ran north-northeast to south-southwest from terminal **3368** for approximately 24.7m until segment **3648**,

where it turned west for approximately 15.2m. Here the ditch extended north-northeast and to the south-southwest forming a T-junction in almost exactly the same footprint as ditch group **3936**. Ditch **3935** also had a similar profile to **3936**, with a sequence of sedimentary fills followed by a backfill event. It measured approximately 1.62m wide and 0.53m deep. It is important to note that the heavy level of truncation to ditch **3935** will have made these averages misrepresentative.

6.28 Ditch **3935** was truncated/recut by ditch **3936** along its entire western and central parts. The similarities in position between **3935** and **3936** suggest that either **3935** was still visible/present in some form when **3936** was originally excavated. Group **3935** ran north-northeast from terminal **3008** (Fig. 6, section 11; Plate 13) through segments **3110**, **3119**, **3115**, **3117**, and terminated at **3170** (cut by ditch **3936** segments **3004**, **3015**, **3111**, **3116**, **3926**, and **3156** respectively). At segment **3119**, ditch **3935** turned east through ditch segment **3158** (cut by **3936** segment **3162**) (Fig. 4).

6.29 This western part of ditch **3935** had a deep, wide, U-shaped profile that became shallower towards the north. Segments **3119** and **3115** showed three fills, although the norm was two (Plate 5). There were no backfill deposits present in this part of the ditch.

6.30 A short gully to the immediate west of culvert **3061**, ran north from its terminus **3138** to segment **3042**, where it was truncated by ditch **3935** segment **3115**. The gully was also heavily truncated by culvert **3061**. Its function is unclear, and no artefacts were recovered from the gully or the palaeoenvironmental samples.

Plate 5: section through ditch 3935 showing sedimentary fills cut by ditch 3936, facing north-northeast.

6.31 Ditch **3935** was fully truncated by **3936** at segments **3675** and **3703** until segment **3648** (cut by ditch **3936**, segment **3617**), where **3935** turned north away from **3936**. From here **3935** ran north-northeast through segments **3449**, **3403**, **3426**, **3465**, **3363**, and terminated at **3368**, which was cut by segment **3395** of ditch **3933** and post-medieval furrow **3366** (Fig. 7, section 18). It ran a similar course to ditch group **3934**, intersecting it at segments **3449** and **3426** (cutting **3444** and **3427** respectively), and fully truncating it at segment **3403**, where post-medieval furrow **3407** transected ditch **3935**. To the north of this, at segment **3465**, ditch **3935** was truncated by two modern service trenches and by post-medieval culvert **3211** to the south (Fig. 4).

6.32 Ditch **3717** ran northwest to southeast, from being truncated by ditch group **3935** segment **3648**, to being cut by ditch **3936** segment **3661** (Fig. 7, section 15), and again further south at its terminus (**3709**), which was cut by **3711**. Terminal **3709** was observed to cut ring-gully **3609** segment **3713**. Ditch **3717/3709** was only partially present due to heavy truncation from ditches **3935** and **3936**; however, as it cut ring-gully **3609**, it could represent a ditch phase between or even prior to groups **3934** and **3935**, although **3935** had completely truncated it to the north. It had a shallow,

narrow, U-shaped profile with a single sedimentary fill. A single piece of a Romano-British open jar rim was recovered from deposit **3710** in ditch terminal **3709**.

6.33 To the north of this, ditch **3935** segment **3449** truncated a shallow semi-circular feature (**3456**) on the eastern edge of ditch **3935**. The function of this feature is unclear, although it may have represented a posthole and formed part of a fence line with a similar semi-circular feature (**3442**) approximately 6m to the north (truncated by **3935**, segment **3426**), which perhaps related to ditch group **3934**. The western edge of segment **3449** was truncated by post-medieval feature **3452**. Its function is unclear.

6.34 Ring-gullies **3487**, **3912** and **3913** were all situated on the eastern edge of ditch **3935**, towards the north. The modern service trench to the immediate north of ditch segment **3465** had removed the relationship between ditch **3935** and these ring-gullies. However, it was clear that ditch **3935** at least truncated ring-gully group **3487**, as the ring-gully is not visible on the southeast facing section of section 19 (Fig. 7).

6.35 Ring-gully **3485** was truncated by segment **3403** of ditch **3935** on its eastern edge, to the immediate north of posthole **3456**. Again, this relationship was partly truncated by modern drainage and post-medieval furrow **3407**, but was still extant (Fig. 7, section 20). Unfortunately, any relationship between ring-gully **3485** and ditch **3934** had been truncated by ditch **3935**.

6.36 Ditch **3935** followed a very similar route to ditch **3934**. Like the relationship between ditch group **3935** and **3936**, this suggests that **3934** may still have been present in some form and/or that those excavating ditch **3935** were aware of the earlier ditch. This development from unenclosed, through part enclosure, to enclosed settlement can be seen at numerous other Iron Age/Romano-British settlement sites in the region, such as Blagdon Park 2, East Brunton, West Brunton (Hodgson *et al.* 2012) and Pegswood Moor (Proctor 2009).

6.37 The profile of this eastern part of ditch **3935** differed to the western portion, as it was a narrower, V-shaped profile with a possible step on the western edge of the ditch; however, like the western portion, it became shallower towards the north.

6.38 Ditch **3935** produced a fragment of fired clay, although this may have been an intrusion from the post-medieval horse gin identified as **3263** to the immediate west.

A single piece of bone was recovered from deposit **3121**, the upper fill of ditch segment **3119**.

6.39 The palaeoenvironmental samples from ditch **3935** highlighted three significant deposits. The first was sedimentary deposit **3448**, the largest fill of ditch segment **3449** to the immediate west of the main ring-gully cluster (Fig. 5). A sample of charcoal/coal weighing 8.7g was recovered from this, along with two grass seeds. One was a spelt (cereal) grain and the other a meadow grass seed. The second deposit was sedimentary fill **3665**, the largest deposit in ditch segment **3363** to the immediate north of the main ring-gully cluster (Fig. 5). This contained 18.8g of charcoal/coal. Whilst the grass grains/seeds from **3448** are useful in terms of identifying farming/subsistence practices on/around the site, the large amount of charcoal material from **3665** may have been part of the occupation activity, indicating that this initial sedimentary event is likely to have taken place whilst the site was active. The third significant sample was deposit **3439** (fill of ditch segment **3426**), which produced 12 pieces of spheroidal hammerslag (Appendix G). However, this may have been an intrusion from gin gang **3261**.

Group 3939

6.40 Ditch group **3939** ran east from the edge of the site at segment **3330**, through segments **3324** and **3312**, for approximately 12.4m. It then turned south at segment **3314** for approximately 2.7m and was truncated by modern disturbance at **3326** (Fig. 4). It had an average width of 0.89m and an average depth of 0.3m, with a narrow, shallow, U-shaped profile with a single sedimentary fill. Segment **3330** also had a collapse deposit (**3332**) on its southern edge. There were no finds from ditch group **3939**; however, nine arable weed seeds were recovered from samples taken from deposits **3315** and **3332**.

6.41 Ditch **3125/3135/3066** ran south-southwest from post-medieval ditch segment **3127** for approximately 16.8m, through segment **3135**, and terminated at **3066**. It had an average width of 1.55m and an average depth of 0.3m. It cut linear gully **3108** at segment **3135** and to the immediate south of this was truncated by gully **3940** segment **3106**. Terminal **3066** was also truncated by posthole **3095**. No finds or ecofacts were recovered from this ditch.

6.42 It is possible that ditch group **3939** related to ditch **3125/3135/3066**, although the site limits restricted the understanding of this. It is also possible that the linear collection of gullies and postholes cut by linear gully **3940**, to the south of ditch **3939** segment **3326** (Fig. 4, detail), formed part of a fence line that also related to **3939**. This group of features appeared to start with linear gully **3275**, which had a very shallow, narrow, steep-sided, undulating U-shaped profile. This was then truncated by posthole/pits **3322** and **3303**, which were subsequently truncated by postholes **3305** and **3340** (respectively). The amorphous nature of this linear progression of features and large number of surrounding post/stakeholes (**3316** to the north, **3318** and **3328** to the east) suggests a structural form, although their function could not be fully ascertained, and no artefactual or environmental data were recovered from any deposit. A possible posthole **3380** was observed c.3m to the west of posthole **3305**. It had a very shallow U-shaped profile and measured c.0.32m in diameter with a depth of 0.05m. Its purpose was unclear, as it appeared to be separate from any of the surrounding similar features.

6.43 Together these features (enclosure ditch **3939**, ditch **3125/3135/3066** and the above mentioned linear gully progression) would have formed a small enclosure measuring approximately 14.4m in width and 14.2m in length that was open to the south. Whilst this enclosure would have been on a similar alignment to that made by ditch group **3935**, the termini of each potential enclosure did not match up. It is also possible that ditch **3125/3135/3066** formed part of an early north–south field system boundary together with ditch **3892** and the western portion of ditch **3935**; however, this is entirely speculation and cannot be substantiated.

Curvilinear ditches

6.44 The majority of the ring-gullies were positioned north of post-medieval culvert **3211** and east of enclosure ditches **3934** and **3935** (Plate 6). Ring-gullies **3608** and **3609** were to the immediate south of culvert **3211**; however, **3608** represented the southern portion of ring-gully **3606**. The only two ring-gullies outside of this main cluster were **3179** and **3488**, directly south and east of **3609** respectively. It is likely that the large area of post-medieval activity to the south and southeast of **3609** had removed a number of further surviving ring-gullies, although this could not be confirmed due to the disturbance.

6.45 Most of the ring-gullies, apart from ring-gully **3485** (see below), did not appear structural in nature, indicating that they likely represent drip/drainage gullies. Segment **3532** in the north-western side of ring-gully **3607/3486** did reveal a possibly contemporary structural posthole **3534** and later addition of stakehole **3536**, but these represented an exception on the site. The comparatively large size and depth of ring-gully **3609**, coupled with the surviving internal features and entrance structure postholes, may suggest that the roundhouse contained within ring-gully **3609** was intended to be a more permanent structure than others on the site. This hypothesis may be further supported by the only occasional survival of possible structural postholes within the main ring-gully cluster.

Plate 6: overhead view of the main ring-gully cluster showing ring-gullies 3608 and 3606, 3486 and 3607, 3484, 3485, 3487, 3913, and 3912 (in order from south to north).

6.46 Located in the centre of the site, to the immediate east of ditches **3934**, **3935** and **3936**, was a large concentration of curvilinear ditches that formed ring-gullies for possible roundhouses (Fig.5; Plate 6), numbering at least seven in total (**3484**, **3485**, **3486**, **3487**, **3606**, **3607**, **3608**, **3912** and **3913**). Some of these are likely to have been repositioning recuts of older ring-gullies. In addition, there were three further curvilinear ditches outside of this area (Fig. 4 and 5); two (**3609** and **3179**) to the

south and one to the east (**3488**). Plate 9 does not show ring-gully **3179**. These ring-gullies suggested occupation over an extended period of time, possibly representing a number of phases of construction. The preservation of all of the ring-gullies was variable, with those located in the centre and to the south generally surviving better than those to the north and east. Due to the level of truncation from the post-medieval farm buildings, it is likely that further remains indicative of this type of occupation had been removed. The following ring-gully groups have been presented in stratigraphic order where possible.

Ring-gully 3912

6.47 Curvilinear ditch **3912** was the northernmost ring-gully (Fig. 5), situated to the immediate east of ditches **3934** and **3935**, and south of the northern section of the main enclosure ditch **3933**. It had a single mid grey, silty clay fill and a shallow U-shaped profile. Its internal diameter was c.6.9m; however, due to the limited level of preservation, this cannot be considered accurate. Four investigative slots were excavated to investigate it.

6.48 It was truncated by an east-west aligned modern drain at its eastern terminal **3411**. To the west of this, segment **3428** was truncated by possible posthole **3436**. This was truncated by linear gully **3432**, which was in turn truncated by ring-gully **3913** segment **3430** (Fig. 7, section 21). To the west of this, ring-gully **3912** became thinner and less uniform with segment **3460** narrowing to c.0.12m and then widening to c.0.24m. To the west of this, **3912** disappeared having been truncated by ring-gully **3913** followed by enclosure ditch **3935**.

6.49 A single piece of fired clay and 33.2g of coal was recovered from **3412**, the fill of terminal **3411**. These may have been intrusions from the post-medieval drain. A seed from a perennial ruderal weed was also recovered from deposit **3412** and is more likely to have been a prehistoric deposit. Deposits **3417** (segment **3416**) also produced 6g of clinker material. In addition to this, deposit **3461** (in segment **3460**) produced a large amount of industrial waste.

Ring-gully 3608 and 3606

6.50 Ring-gully **3606** was projected to be the same as **3608** to the south. This made an east facing entrance measuring c.3.6m between terminals **3579** (ring-gully **3608**) and **3555**

(ring-gully **3606**) with an estimated internal diameter of approximately 11.1m. Both terminal ends had a narrow V-shaped profile becoming shallower towards the south, which was likely due to the post-medieval farm buildings. To the north, the profile became partially stepped, with a steeper inner edge, and terminated as a possible segmented ditch at intervention **3543**. The ring-gully was not observed beyond this to the west, probably due to truncation from ditches **3934** and **3935**, as well as disturbance from the post-medieval farmhouse. The profile of the two terminals and part of ring-gully group **3606** suggests a structural nature to the ring-gully, although the more gradual U-shaped profile of the other seven segments points to a drainage gully. The ring-gully contained a single mid-orange-grey deposit apart from in interventions **3543** and **3594**, which both contained a second upper lighter grey-orange deposit. Six investigative slots were excavated into ring-gully **3606** and four into ring-gully **3608**, making a total of ten exploratory segments.

6.51 Ring-gully **3606** was truncated by ring-gully **3484** at segment **3480** (cut by segment **3524**) just to the north of its terminus **3555** (Fig. 7, section 22). To the west of this, **3606** was truncated by ring-gully **3607**, seen at segments **3588**, **3493** (Fig. 7, section 23) and **3543** (cut by **3586**, **3495** and **3542** respectively). Ring-gully segment **3543** appeared to be a terminus, rising steeply from its base. This suggested that ring-gully **3606** may have been a segmented curvilinear ditch. This was observed again to the south with ring-gully **3608** segment **3604**, which was truncated by ring-gully **3609** (cut by segment **3602**) (Fig. 7, section 24). Ring-gully **3608** was further truncated to the north by post-medieval culvert **3211**, with the gully's terminus (**3579**) to the immediate north of this. As mentioned above, ring-gully **3608** had been badly truncated by the post-medieval farm buildings, which can be seen in Plate 9.

6.52 A single piece of bone was recovered from segment **3590**. Terminal **3555** (deposit **3556**) produced some industrial waste, as did segment **3524**, where ring-gully **3606** was cut by ring-gully **3484**. Deposits **3589** and **3556** both produced small samples of charcoal (4g and 4.5g respectively), with **3525** producing 11g of coal/charcoal. Deposit **3601** produced a single seed from an arable weed (*Chenopodium*). More significantly, a cereal grain was recovered from deposit **3605** (in segment **3604**).

Ring-gully 3609

6.53 The largest and best preserved ring-gully was as **3609**, which cut **3608** and was cut by enclosure ditch **3936** (Figs. 4 and 5; Plate 9). The southernmost portion had been

heavily truncated by post-medieval activity. It had an east facing entrance between terminals **3792** and **3737**, which were c.3.5m apart. Its internal diameter was approximately 9.3m, with a number of internal and associated discrete features and postholes, including a possible cremation burial **3762**. A structure, possibly associated with ring-gully **3609**, was potentially formed by postholes **3757**, **3772** and **3782**. Ring-gully **3609** had a wide U-shaped profile except at segment **3796**, where it displayed a much sharper V-shaped profile. Towards the south, it was much narrower, likely due to truncation. It contained two mid to dark brown-grey fills towards the east and only a single fill at the west, although this may have been removed via truncation from ditch group **3936**. A total of 11 segments were investigated. The features associated with ring-gully **3609** will be presented here as well.

6.54 Segment **3796**, to the immediate north of terminal **3792** (Fig. 7, section 25), was cut by linear gully **3794**, the function of which was unclear, although it was possibly related to linear feature **3775**, located in the interior of ring-gully **3609** (see below). To the immediate west of this, segment **3602** can be seen cutting ring-gully **3608** segment **3604** (Fig. 7, section 24), with post-medieval wall **3215** overlaid on top. West of this, segment **3821** truncates possible pit feature **3841** to the north of **3609**. The function of **3841** was unclear, but it may be related to ring-gully **3608**, which represented part of a drainage gully.

6.55 To the west and southwest of this, ring-gully **3609** had been heavily truncated by both ditch terminus **3709** (cutting segment **3713**) and enclosure ditch group **3936**, which was observed to cut ring-gully **3609** in four interventions (**3711**, **3768**, **3818**, and **3808**, cutting **3713**, **3766**, **3844**, and **3774** respectively) and was presumed to have fully truncated **3609** in another (**3936** segment **3765**). In addition, a linear gully truncated the western (outside) edge of ring-gully **3609** at segments **3766** and **3844** (Fig. 6, section 14) (cut by **3768** and **3839** respectively). Ring-gully **3609** had been heavily truncated by the post-medieval farm activity between segments **3699** and **3670** (Fig. 5). This may have also removed other features in the southern portion of **3609**'s interior.

6.56 Five pieces of fire-affected stone were recovered from segment **3670** (deposit **3671**). Three pieces of bone were recovered from deposit **3738**, upper fill of southern terminal **3737**, with a single piece from the primary fill (**3764**). Six pieces of fire-affected stone were recovered from **3793**, the upper fill of northern terminal **3792**,

along with a single piece of fired clay. Four pieces of possibly handmade coarseware were recovered from fill **3798** in segment **3796**, probably deposited during the use of the roundhouse. The comparatively large amount of fire affected stone found throughout **3609** could further suggest a prolonged use of the roundhouse encompassed within it.

6.57 As with the other ring-gullies, bulk palaeoenvironmental samples were taken from throughout **3609**, which produced a total of 525.6g of coal/charcoal and 132 grains/seeds. Small samples of coal/charcoal came from deposits **3761**, **3700**, and **3823** (segments **3670**, **3699**, and **3821** respectively) none of which weighed more than 4g. Deposits **3764**, **3738**, and **3603** (segments **3737** and **3602**) produced samples weighing no more than 17.5g. The largest samples came from **3822** (44.2g), **3797** (35.2g), **3798** (26.2g), and **3793** (366.8g) (segments **3821**, **3796**, and **3792**).

6.58 Small examples of industrial waste were recovered from **3700** (segment **3699**), as well as **3738** and **3764** (segment **3737**), with a small amount of hammerscale from **3793** (segment **3792**). It is worth noting that the majority of the industrial waste recovered from the site came from the curvilinear ditches, with **3912** having two samples collectively weighing 28.1g, **3913** having a single sample of 25.7g and **3486** having six samples with a net weight of 27g. Other curvilinear ditches with industrial waste comprised **3179**, **3487**, **3488**, **3606** and **3609**. Only ditch groups **3934** and **3935** had industrial waste recovered from them.

6.59 The palaeoenvironmental samples taken from ring-gully **3609** recovered a large number of seeds/grains describing an area of wetland/marshy ground. These were likely being manipulated for domestic use as animal or human bedding. In addition, there was some evidence for arable crops and weeds. The two most significant deposits were **3671** (segment **3670**), which contained 30 specimens of a sedge type plant, indicating the use of a local source of wetland plants. The second was **3793**, which contained a total of 78 seeds/grains, including spelt grains and chaff, heath-grasses and sedge plants, amongst others (see Appendix D). The assemblage from ring-gully **3609** neatly encompasses the character of the archaeobotanical data recovered from the rest of the site.

6.60 A possible entrance structure was encountered between the terminals of ring-gully **3609**, represented by a group of three postholes. Posthole **3757** was located inside

ring-gully **3609** c.0.95m southwest from northern terminus **3792**, with posthole 3772 c.2.1m to the east of **3757**. Posthole **3782** was located 2.2m south of **3772** (Fig. 5).

6.61 Postholes **3757** and **3772** (0.6m and 0.7m in diameter respectively) had vertical sides and flat bases, with a very sharp break of slope at the base. Posthole **3782** (0.84m diameter) had a U-shaped profile with a gentle break of slope and a southward sloping base. The gentler profile of **3782** may be explained by the post-medieval activity to the south. This would not account for the sloping base, although the post-medieval farm building may have truncated a fourth posthole to the south of **3757** and the west of **3782**. A small collection of stones within **3772** was investigated approximately 1.6m to the south of posthole **3757** (Plate 9); however, the stones had been very heavily truncated by a machine bucket and could not be characterised properly.

Plate 7: overhead view of posthole 3772 showing stony backfill 3773 intact.

6.62 Postholes **3757** and **3782** had two and three backfill events respectively, which indicated the decommission of the postholes, as opposed to just their abandonment. Posthole **3772** (Fig. 7, section 26) showed evidence for a possible post pipe (deposit

3919) along with the stone packing in the base (**3920**) and a soil and rubble deposit (**3773**; Plate 7), which also suggested a decommission activity.

6.63 Bone was recovered from all three postholes, in deposits **3759** (posthole **3757**), **3773** and **3800** (posthole **3772**), and 3791 (posthole **3782**). A sample of hammerscale was also recovered from deposit **3759**, along with an archaeobotanical assemblage comprising 27 seeds/grains, predominantly sedge plants, similar to that of deposit **3793** in ring-gully terminal **3792**. Deposit **3759** also produced 141.3g of coal/charcoal after processing. As deposits **3793** and **3759** are both backfill deposits, it is possible that this area of the ring-gully may have been the site of a domestic refuse dump after the apparent decommission of the roundhouse. Deposits **3773**, **3791**, **3799**, and **3800** also produced small assemblages of similar seeds/grains along with small examples of coal/charcoal.

6.64 Two other postholes (**3812** and **3862**) were observed immediately outside ring-gully **3609**. These were located c.0.1m and 0.5m east of ring-gully segment **3796** respectively. Posthole **3862** had a shallow, U-shaped profile measuring c.0.3m in diameter and 0.08m deep. It had a single backfill event (**3866**) with no finds. Posthole **3812** was much larger, measuring approximately 0.5m in diameter by 0.2m deep, with a V-shaped profile oriented towards ring-gully **3609**. Its single sedimentary fill (**3813**) supplied no further data. The function of these two postholes was unclear.

6.65 There were a number of features internal to ring-gully **3609**, mostly representing possible fence like structures. To the east of ring-gully segment **3844**, stakeholes **3819**, **3820** and **3816** describe a possible fence line running northwest-southeast and measuring c.0.57m in length (Fig. 5). Posthole **3814** was situated to the immediate south, although its purpose is unclear. It is possible that it is related to stakehole **3787** c.0.45m to the southwest. Coupled with stakeholes **3816**, **3820** and **3819**, these may have formed a small L-shaped fence structure within the roundhouse, with a right angle turn formed between **3814**, **3819** and **3820**.

6.66 Stakehole **3787** truncated the northern edge of pit **3785**, which had a very shallow U-shaped profile and measured 0.74m east-west by 0.34m north-south. It was only 0.04m deep, which can possibly be explained by modern truncation. The function of pit **3785** is unclear, but the presence of two cereal grains in its fill (**3786**) suggest it was in use during the lifespan of the roundhouse.

6.67 Approximately 1m to the south of this possible fence structure was a curvilinear gully that ran northwest from its terminus **3682** for approximately 1m to segment **3805**, where it was fully truncated by enclosure ditch group **3936** segment **3765**. It had an average width and depth of 0.23m and 0.05m respectively. To the south it had been truncated by modern activity. Its function was unclear, as it had been fully truncated by ditch **3936** to the north, although it is possible that it represented an original/recut of ring-gully **3609** or possibly a roundhouse wall trench.

6.68 Linear gully **3775**, c.0.3m to the southwest of linear gully **3794**, which truncated ring-gully segment **3796**, may also represent an internal fence structure/partition. It measured approximately 1.1m, 0.28m and 0.06m in length, width and depth respectively. It had a very shallow, uneven U-shaped profile, with five separate circular or sub-circular indentations along its length that may represent the base of stakeholes, although this could not be properly established. It was initially thought to be related to gully **3794** (see above); however, it is plausible that, coupled with gully **3794** and postholes **3862** and **3812**, it may form the wall trench for a roundhouse, which was later than that within ring-gully **3609** (Fig. 5). There is no corresponding ring-gully for this and the suggestion is therefore hypothetical, although it is worth noting that the post-medieval farm buildings in this area of the site are likely to have removed a number of prehistoric features.

Plate 8: section through possible cremation burial 3762 showing calcified bone fragments, facing west.

6.69 A single piece of bone was recovered from deposit **3795**, fill of internal partition **3794**. More significantly, a possible cremation burial (**3762**) was encountered to the immediate northwest of **3775**, with fill **3793** representing the deposited cremated bone (Plate 8). **3762** was situated in the north-eastern quadrant of the interior of ring-gully **3609** and measured 0.43m in diameter with a 0.03m depth (Fig. 7, section 27). It had a very shallow U-shaped profile with a single fill (**3763**) that yielded six fragments of animal bone, as well as 23.6g of charcoal/coal, presumably used as fuel, similar to possible cremation **3400** (see below).

Ring-gully 3484

6.70 Ring-gully **3484** survived only in part with post-medieval culvert **3211** truncating it to the south, leaving an internal diameter of approximately 8.7m. Ring-gully **3484** generally had a shallow U-shaped profile containing a single mid brown-grey fill. Seven investigative slots were excavated into ring-gully **3484**.

6.71 The only surviving terminal of ring-gully **3484** was **3424**. It ran for approximately 1.7m with a very narrow profile until it widened to incorporate a step on the northern (outside) edge with a steeper southern (inner) edge. It is possible that this represents a recut, although there was no discernible evidence for this.

6.72 From there, **3484** was observed to cut ring-gully **3606** at segment **3480**, which in turn cut segment **3524** (Fig. 7, section 22). To the immediate west of this, **3484** was truncated by ring-gully **3607** (Fig. 7, section 28) at segment **3522** (cut by segment **3553**).

6.73 To the west of this, **3484** ran through segments **3526** and **3569**, which both displayed a shallower U-shaped profile. To the south of segment **3569**, segment **3511** was truncated by ring-gully **3485** segment **3509** (Fig. 7, section 29). The limit of the survival of ring-gully **3484** was seen at segment **3503**, where it was truncated again by ring-gully **3486** (same as **3607**) segment **3501**. Post-medieval culvert **3211** and modern activity had removed the southern portion of ring-gully **3484**.

6.74 Deposit **3425** in terminus **3424** produced a single piece of bone, as did deposit **3481** in segment **3480**. A small samples of coal/charcoal was recovered from deposit **3570** (fill of segment **3569**) along with a single tuber seed. A much larger sample of coal/charcoal (32.1g) was recovered from deposit **3481** in segment **3480**. As with most of the other ring-gullies on the site, this indicates a use of local floral resources as fuel, as well as farming practices.

Ring-gully 3486 and 3607

6.75 To the immediate east of enclosure ditch **3935** and north of post-medieval culvert **3211** was curvilinear ditch **3486**, which represented the southern portion of the same ring-gully as **3607**. This ring-gully had an internal diameter of approximately 6.7m, with a south-east facing entrance between terminal segments **3489** and **3520**. Terminal **3520** had a wide steep sided U-shaped profile and **3489** appeared be similar, at least from what was observed; however, modern truncation had removed the upper portion of **3489**. The preservation of this ring-gully was varied, although generally good. It had a shallow U-shaped profile to the north, east and south-west where it was segmented between interventions **3582** and **3567**. To the north of this segmentation, the profile became thinner and shallower, with posthole **3534** representing a possibly original/contemporary structural support and stakehole **3536** a

possible later structural repair. Eight investigative slots were excavated into ring-gully **3486** and five into ring-gully **3607**, making a total of 13 exploratory segments.

6.76 As discussed above, ring-gully **3607** cut **3484** at segment **3553** (cutting **3522**) (Fig. 7, section 28). To the north of this, segment **3592** truncated linear gully **3595**, which had a single sedimentary fill and measured c.0.6m in length, 0.2m width and 0.1m in depth. The function of **3595** was unclear, although it is possible that it formed part of a fence partition associated with ring-gully **3606**. A small deposit of fire affected stone was recovered from segment **3592** (deposit **3593**), along with the only recorded small find from the site (RF001). It formed a fragment of a sandstone beehive quern, which were common in Iron Age settlements. The quern had been deliberately quartered, the hopper had been removed and the grinding surface had also been chipped away. It was postulated that, if RF001 were a 'votive deposit', it may show that the 'local inhabitants at Wideopen not only shared the same quern types as their neighbours further south, but also disposed of their querns in similar ways' (Appendix C).

6.77 To the north of this, ring-gully **3607** was observed cutting ring-gully **3606** at segment **3586** (cutting **3588**) and was also cut by ring-gully **3487** (segment **3584**). This was also observed to the west at **3607** segment **3495** (cutting **3493** and cut by **3497**) (Fig. 7, section 23). To the west, ring-gully **3607** was again observed to be cutting **3606** at segment **3542** (cutting **3544**).

6.78 Segment **3532** was partly interrupted by posthole **3534** and stakehole **3536**. Posthole **3534** was interpreted as being contemporary with ring-gully segment **3532** as their fills (**3535** and **3533** respectively) appeared to be synonymous. However, the deposition of this fill cannot indicate firmly the date and/or relationship of these two features. Stakehole **3536**, however, was clearly a later intrusion. The function of **3534** and **3536** was unclear.

6.79 Ring-gully **3607**/**3486** was observed to be truncated by ring-gully **3485** at segment **3540** (cut by **3538**) (Fig. 7, section 30). To the south of this, ring-gully **3607**/**3486** was segmented between interventions **3582** to the north, and **3567** to the south. Segment **3582** had a wide, shallow, U-shaped profile that measured 0.54m wide and only 0.1m deep. Segment **3567** mirrored this, differing only by a few centimetres. It is possible that this segmentation occurred due to post-medieval and/or modern truncation of the feature. However, segment **3582** appeared to have two distinct

segment terminals (Fig. 5) although no difference in the fill (**3583**) could be distinguished.

6.80 Beyond this, the ring-gully widened appreciatively to the southeast to c.0.95m at segment **3514**. it was then observed to cut ring-gully **3484** again at segment **3501** (cutting **3503**). As mentioned above, modern activity had heavily truncated the ring-gully beyond this to the east so that southern terminal **3489** survived only in part.

6.81 Two pieces of bone were recovered from both terminal **3520** (deposit **3521**) and posthole **3534** (fill **3535**). Deposit **3593** in segment **3592** produced 24 pieces of fire-affected stone, along with a single piece of worked stone, which was retained as a possible fragment from a beehive quern and was the only recorded find from the site.

6.82 Hammerscale was recovered from terminal **3489** (deposits **3490** and **3593**). Some industrial waste was taken from the fills of segments **3520** and **3540**, as well as from **3593**. This high level of industrial waste and hammerscale may indicate small-scale metalworking, although as the metal production residue specialist report (Appendix G) indicates there is insufficient evidence from across the site to signify localised metal-working processes.

6.83 The plant material recovered from the ring-gully is much like that within the ring-gullies discussed above. Samples of local deciduous wood identified from charcoal may have been potentially used as fuel and an assemblage of grass type crops and arable weeds mixed with wetland/marsh plants, such as sedges, was also recovered. Terminal **3520** fill **3521** produced the majority of the archaeobotanical data recovered from ring-gully **3486**/**3607**.

Ring-gully 3485

6.84 Ring-gully **3485** was positioned to the immediate east of enclosure ditch **3935**, cutting both ring-gullies **3486**/**3607** and **3484**. Ring-gully **3485** had a very poor level of preservation, with only its southern part surviving. This could be due to its truncation by ditch **3935** and the post-medieval activity on the site. It had a shallow U-shaped profile that varied from intervention **3563**, with a steep convex northern (inner) edge, to intervention **3560**, with a uniform U shape. Significantly, segment **3509** had a stepped inner (northern) edge and a steep-sided outer edge. This may indicate a

structural nature to the ring-gully, although no evidence for postholes within the profile of ring-gully **3485** was observed.

6.85 A total of six exploratory slots were excavated into ring-gully **3485**, starting from intervention **3409**, which was truncated by ditch **3935** segment **3403**. To the east, segment **3538** was observed cutting ring-gully **3486** segment **3540** (Fig. 7, section 29). As above, segment **3560** displayed a wider U-shaped profile that deepened with steeper sides to the east at segment **3509**, which cut ring-gully **3484** segment **3511** (Fig. 7, section 28). The terminus of ring-gully **3485** was truncated by a small amorphous cut feature (**3477**) at segment **3476**, and also by a modern drain at segment **3563** (Fig. 5). Feature **3477** represented a shallow linear gully aligned northeast-southwest, which curved southwards slightly at its southern end. It may be related to the linear group of postholes (**3528**) c.0.6m to the northeast, representing a partition of some kind that may possibly be associated with pit **3491**. The function of gully **3477** is ultimately unclear, although it may also represent part of a structure at the entrance to ring-gully **3485**. Some similar posthole features were observed at ring-gully **3913** terminus **3385** (**3393** and **3398**).

6.86 A piece of bone was recovered from both deposits **3561** and **3564** in segment **3560** and terminus **3563** respectively. A sample of coal was recovered from each of the palaeoenvironmental samples taken from segments **3560**, **3509** and **3563**, weighing 9.1g, 7g and 17g respectively.

Ring-gully 3487

6.87 Ring-gully **3487** was positioned south of ring-gully **3912** and was thus interpreted as a recut/repositioning of **3912**. However, the two have no direct relationship. Ring-gully **3487** had a stepped V-shaped profile and a series of mid to dark grey-brown deposits. It was recut to the north by curvilinear ditch **3913**. Due to the poor preservation to the north, only an approximated measurement of 9.4m can be given. A total of five exploratory interventions were excavated into ring-gully **3487**.

6.88 At segment **3463**, ring-gully **3487** was observed to have been truncated by enclosure ditch **3935** segment **3465**. This is despite the relationship having been removed by a modern service trench, as the ring-gully cut was not observed on the southeast facing section of section 19 (Fig. 7). To the east of this, ring-gully **3487** was observed to have been truncated by **3913** at interventions **3422**, **3497** (Fig. 7, section 22) and **3413** (cut

by **3434**, **3499** and **3529** respectively). At intervention **3584**, ring-gully **3487** was observed to cut ring-gully **3607/3486** segment **3586**, as well as at segment **3497** (cutting **3495**). Beyond segment **3413**, ring-gully **3913** had fully truncated the terminus of **3487** (Fig. 5).

6.89 Aside from seven pieces of fire affected stone recovered from deposit **3418** (in segment **3413**), situated close to the terminal end, no artefactual data were recovered from **3487**. However, 7g of coal were recovered from deposit **3415**, the secondary fill of segment **3413**, in addition to 28.9g from **3423**.

Ring-gully 3913

6.90 Ring-gully **3913** had a shallow U-shaped profile with two dark grey-orange fills in the east which dropped to one dark grey fill to the west. Again, due to the poor preservation, only an approximated internal measurement of 8.8m can be provided for ring-gully **3913**. Five investigative slots were excavated into ring-gully **3913**, as described above; segments **3434**, **3499** and **3529** cut ring-gully **3487** (at segments **3422**, **3497** and **3413** respectively). Segment **3430** was observed to cut linear gully **3432**, which measured approximately 0.8m in length with a depth of 0.05m. Linear gully **3432** truncated possible posthole **3436**, which measured c.0.6m by 0.3m with a depth of c.0.1m. Posthole **3436** in turn cut ring-gully **3912** segment **3428** (Fig. 7, section 21). The purpose of linear gully **3432** and posthole **3436** was unclear, although they may have been related to ring-gully **3487**, perhaps acting as internal structures or partitions. However, as **3913** has truncated the northern edge of **3487**, this is speculation.

6.91 Ring-gully **3913** terminus **3385** was partly truncated by stakeholes **3393** and **3398**. Both stakeholes were positioned on the edge of terminus **3385**, with **3393** to the north and **3398** to the east (Fig. 5). Stakehole **3393** measured c.0.15m in diameter with a depth of 0.07m, while **3398** was slightly wider, measuring c.0.21m in diameter and c.0.05m in depth. Their purpose was unclear, although it is possible that they are part of a fence structure related to the entrance to ring-gully **3913**, as they respect its southern terminal end.

6.92 Ring-gully **3913** produced two pieces of fire effected stone from deposit **3431** (segment **3430**), five pieces from **3414** (segment **3529**) and four pieces from terminal (**3385**) deposit **3386**. This large amount of fire-affected stone was accompanied by a

high volume of industrial waste from **3414**, as well as a single piece of bone from **3386**.

6.93 Alongside this, the palaeoenvironmental samples taken from throughout **3913** produced large samples of coal/charcoal from deposits **3386**, **3414** and **3500** (in segments **3385**, **3529** and **3499** respectively), weighing 68g, 45.6g and 17g respectively. In addition, terminal **3385** deposit **3386** produced a small assemblage (n=9) of grains from wetland plants and arable weeds/crops. A smaller assemblage of similar grains was recovered from deposits **3414** (n=5) and **3500** (n=7). Deposit **3414** also produced 100 seeds from a *Potentilla* species, a type of cinquefoil. However, these were identified as an intrusive deposit (Appendix D), as their preservation was such that they could not have been more than a year or two old and it is possible that they were deposited during the demolition activity on the site.

Plate 9: overhead view of ring-gullies 3609 and 3488.

Ring-gully 3488

6.94 Curvilinear ditch **3488** was situated to the southwest of the main ring-gully cluster and was truncated by enclosure ditch **3933** to the east (Fig. 4; Plate 9). It was also truncated to the south by both a medieval furrow and an area of modern disturbance, so that no termini were extant. It also appeared to be the smallest of the ring-gullies on the site with a projected internal diameter of 6.1m. It had a shallow, narrow U-shaped profile that was best observed at intervention **3557** (Fig. 7, section 31). Ring-gully **3488** had two mid brown-grey fills to the west but only one to the east. Four exploratory slots were excavated.

6.95 Enclosure ditch **3933** segment **3577** truncated ring-gully **3488** at segment **3775** (Fig. 6, section 7; Plate 11). To the west of this, a small area of modern disturbance interrupted segment **3571**, which was wider than the other segments in the ring-gully, measuring c.0.7m. to the west. Southwest of this the ring-gully suffered badly from modern truncation, with segment **3573** being fully truncated to the south (Fig. 4).

6.96 No artefactual evidence was recovered from **3488** and only 9.2g of coal/charcoal were present within deposit **3576** (segment **3575**) and 9g from deposit **3572** (segment **3571**).

Ring-gully 3179

6.97 The southernmost curvilinear ditch **3179** was c.2.1m north of enclosure ditch **3932**, and c.9m south of ring-gully **3609**. The ring-gully had been fully truncated by an area of post-medieval disturbance associated with the farmhouse to the immediate northwest of segment **3018** (Fig. 4). To the east, its terminal (**3186**) was truncated by a modern service trench that also truncated the northern edge of segment **3190** and the southern corner of segment **3185**. Terminal **3186** appeared to have an internal spur (**3123**) aligned north-west to south-east, which possibly represented an alteration to the ditch after its initial cut, perhaps connecting the extant outer ring (**3179**) with an inner ring.

6.98 The ditch had a shallow U-shaped profile best seen at segment **3018** (Fig. 7, section 32) with a single mid grey-brown fill, except in terminal **3186** (Fig. 7, section 33), which had two sedimentary fills. Four exploratory slots were excavated into ring-gully **3179**. The level of truncation to this ring-gully and the area to the east and north was severe, due to the presence of the farmhouse which previously occupied the site (NAA 2016a).

6.99 An example of hammerscale was recovered from the palaeoenvironmental sample taken from **3124**, fill of spur intervention **3123**, and industrial waste was recovered from **3190** in segment **3191**, along with a single piece of bone. The samples taken from throughout **3179**, notably excepting segment **3018**, all produced quantities of charcoal/coal. However, these may all be intrusive due to the modern service trench running through these segments. Similarly, the small assemblage of grains recovered must be treated with caution.

6.100 Pit **3047** was approximately 1.2m northeast of segment **3185**. It had a shallow U-shaped profile measuring c.0.15m in depth and 0.35m in width (Fig. 7, section 34) with a length of approximately 1.4m. it produced no environmental or artefactual data. It seems likely that is related to ring-gully **3179** and it is possible that it represents a refuse pit. It was initially thought to be a fire pit, but no evidence for burning was seen or recovered from within the fills and there was no evidence for heat affected ground within or surrounding the pit.

6.101 As ring-gully **3179** was situated to the immediate north of ditch **3932** and the immediate east of ditch terminal **3175**, it was initially thought to have been part of the earlier set of potentially unenclosed roundhouses that had been cut by ditch **3936**; however, if the extent of **3179** is projected beyond the post-medieval truncation, it appears that it respected the position of both ditch **3932** and the projected alignment of the possible terminus (**3175**) of group **3936** (Fig. 4). This could mean that **3179** represented part of the occupation of the main enclosure. Whilst it cannot be proven, it is probable that ring-gully **3179** was not the only roundhouse present during the use of the main enclosure.

Main enclosure

6.102 The main enclosure was formed by ditch **3933** on its northern and eastern sides, ditch **3932** along its southern and part of the western edge and by part of ditch **3936** along the remaining western side. Its internal dimensions were 46.61m north to south and 40.11m east to west. The main enclosure was subdivided, potentially to separate an area for occupation to the east from a sub-enclosed area to the southwest. The sub-divided enclosure in the south-western corner was formed by ditch group **3936** and the western part of ditch **3932**. It measured approximately 22.3m by 17.3m. It is important to note that these ditches were the three final events in the enclosure sequence.

6.103 As stated above it is likely that ring-gully **3179** was accompanied by other roundhouses during the use of this main enclosure; however, it is not currently possible to attribute any of the other ring gullies to this main enclosure series.

Group 3933

6.104 Ditch **3933** terminated at **3513** to the east of the north-western terminal **3156** of ditch group **3936**. It ran west-northwest to east-southeast for approximately 32.8m before turning to the south. It continued for 31.3m until it was fully truncated by post-medieval at intervention **3654**.

6.105 Ditch group **3933** had a wide U-shaped profile apart from at intervention **3468** on its northern side, where the slightly steeper sides described a wide V-shaped profile with a stepped northern edge. Intervention **3395** to the west of **3468** also had a gradual stepped northern edge. It measured approximately 3.32m in width and 0.84m depth. Every intervention in ditch group **3933** was filled by a series of silting deposits interspersed with backfill deposits, which described a period of use, decommission and abandonment.

Plate 10: section through enclosure ditch group 3933, facing northwest.

6.106 This was most clear at intervention **3623** (Fig. 6, section 4; Plate 10) where silting deposit **3632** covered the base and the step on the western or inner edge of the ditch. The ditch may then have been cleaned out, as **3632** covered only the western step and part of the ditch base. This was then covered by backfill deposit **3624**, seen as tip

lines on both sides of the ditch, followed by a further silting deposit. A secondary cleaning event may have been followed by backfill deposit **3627**, with sedimentary deposits **3628** and **3626** following that. The final backfill deposit (**3629**) was covered by sedimentary deposit **3630**, which most likely represented agricultural activity related to the ridge and furrow that was present across the site.

6.107 This series of three backfill deposits and related cleaning events was seen along the eastern length of ditch group **3933** at **3635**, **3669** and **3577**. Interventions **3640**, **3620** and **3654** each showed at least one backfill deposit but were all partly or heavily truncated by modern disturbance.

6.108 Terminal **3513** (Fig. 6, section 5) also displayed a backfill deposit between a series of sedimentary deposits. The disturbance from modern services and nearby post-medieval culvert **3029** and associated walls **3035**, **3036** and **3037** (seen as Byre 2; NAA 2016a, 34-40) heavily truncated this terminal, however, and a full understanding of its position and form was unobtainable.

6.109 Ditch **3933** produced a piece of bone from both deposits **3578** and **3643**, the upper two deposits from intervention **3577**. A piece of bone was also recovered from both **3624** and **3625**, a backfill and sedimentary deposit (respectively) of intervention **3623**.

6.110 Three pieces of fire-affected stone were found within deposit **3628**, an upper fill of intervention **3623**. An initial backfill deposit (**3656**) in intervention **3635** contained a single fire-affected stone.

6.111 A single piece of glass (probably from a bottle) was recovered from deposit **3471**, a sedimentary deposit in intervention **3468**. This is likely to have been an intrusion from a post-medieval/modern drain, along with three pieces of CBM found in **3470**.

6.112 A large amount of charcoal was recovered from intervention **3468** deposits **3469** (15.6g), **3470** (4g), **3471** (5.7g). Whilst the largest amount came from the upper fill **3469** and may have been an intrusion from the east-west aligned field drain, the presence of this charcoal within both the sedimentary and deliberate fills of the ditch may suggest a prolonged period of use for the ditch and its surrounding area as a domestic waste dumping area. Other deposits that produced significant samples of coal or charcoal are **3642** (21.7g), **3644** (7.4g), **3691** (10g) and **3419** (4.5g).

6.113 Ditch **3933** segment **3395** cut **3368**, part of ditch group **3935** (Fig. 6, section 6). This was assumed to be a terminal of enclosure ditch **3935** due to its shallow nature when compared with the rest of the ditch, although the rise in depth was very gradual. This relationship was partly truncated by post-medieval furrow **3366**.

Plate 11: intersection between enclosure ditch 3933 and ring-gully 3488, facing northeast.

6.114 The only other prehistoric feature that ditch group **3933** directly impacted upon was ring-gully **3488** (Fig. 6, section 7). Ditch intervention **3577** truncated the eastern portion of the ring-gully at cut **3575** (Plate 11). It is clear from these two stratigraphic relationships that the main enclosure was preceded by at least one, if not more phases of occupation at the site.

6.115 As with the rest of the site, a large amount of post-medieval and modern activity had truncated ditch **3933**, including the east-west aligned ridge and furrow and refuse pit **3684**. These will be presented below.

6.116 Ditch intervention **3654** was the most southerly in ditch group **3933** due to heavy truncation from the post-medieval farm activity in the south-eastern part of the site.

The alignment of ditch **3933** from **3654**, south towards ditch group **3932**, suggested that the two ditch groups were likely the same, but were separated by the post-medieval truncation. Unfortunately, due to contamination of this part of the site, the corresponding eastern extent of ditch **3932** could not be excavated; however, the profile of intersection **3847** was very similar to the two nearest interventions in ditch **3933** (**3654** and **3577**).

Group 3932

Plate 12: section through ditch group 3932 showing sedimentary and backfill deposits, facing southwest.

6.117 Ditch group **3932** ran in an exact alignment with **3933** from the above mentioned area of post-medieval truncation (Fig. 4). It continued for approximately 8.4m before turning east-west along the southern extent of the site for approximately 46.4m. It then turned northwards, running for approximately 14.8m, before being truncated at intervention **3903** by post-medieval disturbance associated with culvert **3298** (Fig. 4). Ditch **3932** must have terminated in this area, as it did not appear on the other side of this disturbance. The north-western terminal of **3932** beyond **3903** would have formed

a possible entrance with the south-western terminal of ditch **3936**. Ditch **3932** thus formed the southern part of the main enclosure.

6.118 Ditch **3932** had a similar shape to ditch **3933**, with a wide, deep, U-shaped profile that widened towards the west and then narrowed after turning north from intervention **3873**. It measured approximately 3.3m in width and 1.05m depth. Also similar to ditch **3933**, ditch **3932** was filled by a series of silting deposits and one or two backfill deposits, best seen at intervention **3879** (Fig. 6, section 8; Plate 12). The western portion of **3932** (interventions **3192**, **3869**, **3879**, **3871**, and **3903**) also displayed a slumping event that may represent the partial collapse of a bank associated with the ditch. However, this slumping was not present in **3873**, possibly because the ditch turned here. In each of these interventions, the slumping event occurred on the outside edge of the enclosure ditch, apart from at **3903** where slumping deposit **3911** was on the inside (eastern) edge of the ditch (Fig. 6, section 9).

6.119 Ditch **3932** produced a sherd of medieval pottery from both **3860** and **3884** (Appendix B), the upper fills of interventions **3854** and **3879** respectively. As these sherds came from the upper fills of the ditch in both cases it would be unreasonable to date the entire ditch to the medieval period. Instead it can plausibly be suggested that this upper fill may be the result of medieval activity on the site, perhaps of an agricultural nature in the form of ploughing. The upper deposit **3865** in intervention **3855** contained a piece of fired clay.

6.120 Deposit **3864**, secondary fill of intervention **3855**, contained a single piece of bone, as did **3881**, secondary fill of intervention **3879**. Primary fill **3880** from intervention **3879** contained three pieces of bone.

6.121 No significant ecofacts were recovered from ditch **3932** although a small number of wild strawberry (*Fragraria vesca*) seeds were recovered from **3874** in cut **3869**.

6.122 A number of post-medieval features truncate ditch group **3932** and will be detailed below; however, they are worth noting here. A modern service trench ran east west truncating the northern side of interventions **3873**, **3879**, **3869**, and **3192**. In addition, a modern lead water pipe also truncated interventions **3903** and **3871**. More significantly, a post-medieval waste pipe, which was the source of contamination mentioned above, truncated interventions **3879**, **3869**, **3192**, **3855**, **3854**, and **3847**.

6.123 Post-medieval road surface **3292** was located between **3871** and **3903** and modern wall **3300** (seen as Foldyard 1; NAA 2016a, 31-3) clipped the northern edge of cut **3854**. In addition, post-medieval well **3165** was sunk to the immediate east of intervention **3855**, which effected the positioning of the interventions in ditch group **3932**.

6.124 A shallow ditch or gully (**3180**), entered the site from the southern limit of excavation, but its relationship with ditch group **3932** was destroyed by east-west aligned furrow **3182**, which ran along the southern boundary of the site. Similarly, ditch **3892** also entered the site from the south and appeared to be turning east, but was cut by **3873** where ditch group **3932** turns north (Fig. 6, section 10). It is unclear if ditch **3892** was related to the enclosure ditch(es) (groups **750** and **822**) from the north-western corner of East Wideopen Farm 2016 (Fig. 2; NAA 2016a, 13-5, 23); however, it was significantly shallower than ditch **3932** and did not appear to be a ditch terminus. If this were the case it is possible that ditch **3932** represented some form of enclosure ditch recut that overlay an earlier set of enclosure ditches. This would be further supported by intervention **3395**, which cut ditch **3935** terminus **3368**.

6.125 As already stated, ditch group **3932** formed the southern part of the main enclosure. This, coupled with its almost exact alignment with the southern end of ditch **3933**, means that the two ditches are likely to be the same, but have been truncated by the post-medieval farm.

6.126 Cut **3175**, a possible terminal for ditch group **3936**, stopped 1.9m north of ditch **3932**, between interventions **3869** and **3192**. Whilst this ditch was much shallower than the rest of group **3936**, it is in exact alignment with terminus **3705** to the north. It is possible that this sub-enclosure was added to at a later date, resulting in cut **3175** respecting the position of ditch **3932.** For this reason, it was assumed that **3175** is concomitant with ditch group **3932**. However, it cannot definitively be linked to enclosure ditch group **3936**.

6.127 Ring-gully **3179** was situated to immediate north of ditch **3932** and the immediate east of terminal **3175**. Ring-gully **3179** has been further detailed above; however, it is worth noting here that it respected the position of both ditch **3932** and the projected alignment of the possible terminus (**3175**) of group **3936** (Fig. 4).

Group 3936

6.128 The western side of the main enclosure was formed by ditch group **3936**. It largely represented a recut of ditch **3935** but turned south again to form a sub-enclosure in the south-western corner, rather than turning north as **3935** did. As ditch **3936** followed **3935** almost exactly on this western edge, it is probable that ditch **3935** was still present in some form when the main enclosure was made. This means that the main enclosure used the existing north-northeast to south-southwest ditch on its western edge and reworked the interior through the sub-enclosure formed by ditch **3936**.

6.129 Ditch **3936** turned southwards at intervention **3617** for approximately 11.1m until intervention **3705**. Here it was truncated by a large area of disturbance caused by the post-medieval farm buildings, but did appear to terminate. However, ditch **3856** to the south, which was truncated by two different areas of modern disturbance, followed an almost identical alignment, making it a likely continuation of ditch **3936**, with terminal **3175** respecting ditch **3932** as detailed above.

6.130 At the north-western corner of the main enclosure, the terminus (**3156**) of ditch **3936** possibly made an enclosure entrance with terminus **3513** of ditch **3933** to the east. The south-western sub-division formed by ditches **3936** and **3932** measured approximately 22.3m by 17.3m internally.

6.131 Ditch **3936** had a wide, shallow, U-shaped profile to the west, which changed in the east to incorporate a stepped side on the inside edge of the sub-enclosure. It measured approximately 1.5m in width and 0.5m in depth. It had an initial silting deposit followed by a backfill event, which possibly denotes a settlement decommission/abandonment. The western part of ditch **3936** appears to have been much shallower than the eastern portion, with only the southern terminal **3004** (Fig. 6, section 11; Plate 13) and intervention **3926** underneath post-medieval wall **3054** (Fig. 6, section 12) with sufficient survival to present three fills. In addition to this poor level of survival, approximately 30.4m of this part of ditch **3936** could not be properly excavated due to the presence of waterlogged culvert **3061** (Fig. 4).

6.132 The backfill event **3058** in intervention **3926** was in the base of the cut with two sedimentary fills above it. This may have been the result of a cleaning event in this part of the ditch prior to its backfill; however why this would occur in one place and not throughout the rest of the ditch is not clear.

6.133 This western part of **3936** was disturbed by three post-medieval/modern postholes, **3019** (truncating segment **3015**), and **3010** and **3024**, which both truncated terminus **3004**.

6.134 At segment **3111** ditch **3936** followed ditch **3935** turning east. The level of truncation in this area resulted in only a low level of survival of both ditches **3935** and **3936**. However, it was clear that at this point, based on the profiles of the two ditches, **3935** started to become shallower, whilst **3936** deepened. To the west of culvert **3061**, cut **3158** of ditch **3935** was still visible, with **3162** above it. To the east of the culvert however, only ditch group **3936** was visible as cuts **3675** and **3703**. The level of truncation remained considerable, with a drainage pipe relating to wall **3297** running directly through intervention **3703** (Fig. 6, section 13), where ditch **3936** had developed the step present throughout the southern turn forming the sub-enclosure, best seen at **3818** (Fig. 6, section 14). This step was lost to the south due to the post-medieval activity in that area.

6.135 At intervention **3617**, ditch **3936** could be seen cutting ditch group **3934** (segment **3645**). After segment **3648** (also cut by ditch **3936**, segment **3617**) where ditch **3935** turned north, ditch **3936** turned south to form the above mentioned sub-enclosure. The area to the immediate south of this turn experienced a large amount of activity in comparison with the rest of the site, with a number of ditches and gullies running through or terminating within it.

Plate 13: section through enclosure ditch group 3935 and ditch group 3936 termini, facing northeast.

6.136 Ditch **3717**/**3709** was truncated by ditch group **3935** segment **3648**. To the south of this it was further truncated by ditch **3936** segment **3661** (Fig. 7, section 15). Its terminus **3709** was then seen to be cutting ring-gully **3609** at segment **3713**. As detailed above, this series of truncation shows that ditch **3717**/**3709** may represent an enclosure phase prior to ditches **3935** or perhaps even **3934**.

6.137 A shallow curvilinear gully was observed to run along, and was cut by, the western (inner) edge of **3936** at segments **3667** (filled by **3668** on Fig. 5) and **3777** (Fig. 7, section 16) (cut by **3661** and **3768** respectively). It truncated the western (outer) edge of ring-gully **3609** at segments **3777** and **3839** (cutting **3766** and **3844** respectively). The function of this gully is unknown; however, it was observed to have also been truncated by ditch group **3934** at **3667** (cut by terminal **3659**), placing it before this phase of enclosure. It is possible that it represented the construction cut for a fence-line related to ditch **3709**/**3717**, although this is could not be confirmed. What is clear is that, based on the interaction of these ditches with ring-gully **3609**, the series of enclosures seen at the site occurred after the infilling of said ring-gully.

6.138 Ditch **3936** cut ring-gully **3609** at segments **3768**, **3818** and **3808** (cutting **3766**, **3844** and **3774** respectively). This was best seen where the outer edge of **3844** could be seen along the inner edge of **3818** (Fig. 6, section 14). Ditch **3936** had fully truncated **3609** at segment **3765**, with **3609** appearing again at **3774** (cut by **3808**) to the south. It was clear that **3609** had fully silted up by the time ditch **3936** was excavated, which suggests that the roundhouse associated with **3609** was also likely to have no longer been in use.

6.139 A short curvilinear gully to the east of **3936** was truncated by segment **3765** (cutting **3805**). The gully continued for approximately 1m before terminating at segment **3682**. The function of this gully was unclear, but it was unlikely to be part of ring-gully **3609**. It could have been a recut/original cut of the drainage gully associated with the roundhouse. It is possible that it may also represent an internal structural wall line, however due to the high level of truncation in the area this could not be substantiated. This will be discussed below.

6.140 The profile and fill sequence of the eastern part of ditch **3936** could best be seen at segment **3818** (Fig. 6, section 14), which showed a series of sedimentary and slumping fills followed by a dark backfill at the top of the sequence. Whilst there appeared to have been more sedimentary fills, including a collapse/slumping event in places (**3749**, **3836**, **3837**, **3925**) in comparison to the western portion, this may simply be a result of it being deeper to the east. It is clear that the backfill event throughout the ditch occurred towards the end its use, perhaps representing a decommission activity.

6.141 Ditch **3936** appeared to terminate to the south at **3705** (Fig. 7, section 17; Plate 14), with a sharp break of slope from the base of the cut upwards. The base of the ditch also widened slightly here in comparison to further north. To the south, however, there was a possible continuation of ditch **3936**, ditch segment **3856** and its further terminus **3175** (Fig. 4). Segments **3856** and **3705** were not observed to be connected due to the heavy level of post-medieval truncation in that area; however, it is also possible that **3856**/**3175** represented a continuation/recut of ditch group **3936**, or vice versa. Segment **3856** and terminus **3175** were also separated by an area of post-medieval/modern disturbance, and **3856** was so heavily truncated that it survived only to a depth of 0.11m. Terminus **3175** had also been truncated by an east-west aligned

cast iron service pipe. Both **3856** and **3175** were observed to have a single sedimentary fill.

Plate 14: section through ditch 3936 terminus 3705, facing northeast.

6.142 Ditch **3936**, whilst large, produced very little artefactual or palaeoenvironmental data. Two pieces of fire-affected stone were found within **3728**, an initial backfill deposit in intervention **3705**. A single piece of glass was recovered from deposit **3176** in terminal **3175**; however, this was a post-medieval intrusion.

6.143 A single piece of fired clay was recovered from **3835**, an upper sedimentary deposit in ditch **3818**, along with a single piece of bone. A single piece of fired clay was also recovered from the single fill (**3157**) of the north-western terminus (**3156**) of ditch **3936**.

6.144 Ditch **3936** did produce a small assemblage of coal, with the largest samples coming deposits **3157**, **3662** and **3769** (4.9g, 7.6g and 8.2g respectively). However, the archaeobotanical specialist report (Appendix D) suggests that this could be a result of modern intrusion and the local exploitation of natural coal seams (see para. 3.17 and 3.18). That being said, deposits **3662** and **3769** both occur at the base of their

respective ditch segments (**3661** and **3768**) suggesting that this natural resource may have been exploited much earlier.

6.145 The backfill events present throughout ditch **3936** and more significantly **3932** and **3933** could suggest some kind of abandonment/decommission of the site. Their sporadic nature coupled with their relatively small size is equally likely to point to the ditches being used as a convenient refuse tip, although this would seem counter intuitive with their being enclosure ditches.

6.146 The nature of the sub-enclosure created by ditches **3936** and **3932** is unclear as there were no prehistoric features found within it. This may be due to the level of truncation in the area, but this is not universal across the sub-enclosure. This lack of prehistoric features may indicate that it was used as a livestock corral, although there is currently nothing to support this hypothesis.

Other prehistoric contexts

6.147 As well as the enclosure and curvilinear ditches, other discrete prehistoric features were excavated, including a second possible cremation burial, postholes, pits and possible internal roundhouse partitions/fences (Fig. 4 and 5). These are discussed below.

6.148 Posthole **3551** was situated approximately 0.5m northeast of ring-gully **3486**/**3607** segment **3534**. It measured c.0.21m in diameter and had a depth of c.0.1m, with a U-shaped profile. No artefacts were recovered from its fill (**3552**) and the palaeoenvironmental samples were also sterile. Its function was unclear, although it may have been related to either ring-gullies **3606**/**3608** or **3486**/**3607**. It is possible that it was related to posthole **3534** c.1m to the south-southwest, and is therefore more likely to be associated with ring-gully **3486**/**3607**.

6.149 Similarly, posthole **3478** was ambiguously positioned directly north of ring-gully **3484** segment **3569**. It measured c.0.3m by 0.25m and was 0.1m deep, with a shallow U-shaped profile and a vertical northern edge. Like posthole **3551**, no artefacts were recovered from its fill (**3552**) and palaeoenvironmental samples were also sterile. Its close proximity to ring-gully **3484** is likely to be entirely circumstantial, and it is more likely to be part of an inner support structure for ring-gully **3486**/**3607** or possibly

3485, with other structural postholes removed either by subsequent prehistoric or modern activity.

6.150 Posthole **3565** was situated c.1.7m northeast of ring-gully **3606** segment **3594** (Fig. 5). It measured approximately 0.55m by 0.35m, with a depth of 0.13m. It had a U-shaped profile with a small step approximately 0.05m wide on its northern edge. Its single light grey fill (**3566**) produced 6.6g of charcoal. Its function and date are unclear. Posthole **3473**, approximately 2.9m to the east of **3565**, had a similar fill (**3474**), although no ecofacts were recovered from it. It measured c.0.25m in diameter with a depth of c.0.2m. Whilst **3565** had a somewhat formless profile and shape, **3473** appeared to be a more firmly cut feature, although its function was still unclear.

6.151 Posthole **3610** was located approximately 1.2m north of post-medieval furrow **3614** and 15m west of enclosure ditch group **3936** terminus **3156**. It was initially thought to be a third cremation burial due to the dark nature of its fill (**3611**). Due to its ovate shape and irregular profile, coupled with its isolation within the site, the lack of artefactual data and very small archaeobotanical assemblage recovered from **3611**, its function remains uncertain.

6.152 Pit **3241** was encountered approximately 8m to the east of field system ditch **3938** segment **3272**. It had an ovoid shape aligned north-south and measured 0.95m by 0.55m with a depth of c.0.2m. It was truncated to the south by post-medieval boundary ditch segment **3231**. No artefactual or environmental data were recovered from its fill **3242** and its function is unclear. It did not appear to be post-medieval in date, however, and it may have been related to field system ditch **3938**, although in what capacity is uncertain.

6.153 The largest pit feature encountered on the site was pit **3333**. It was situated approximately 0.35m west of post-medieval animal burial **3358** and 5.25m north of enclosure ditch **3933** segment **3468**. It measured c.1.55m northwest-southeast by 1.45m northeast - southwest. There was a step on both sides, each measuring approximately 0.3m, which extended the width to 2.05m (Fig. 7, section 35). In plan these steps resembled postholes; however, they were proven in section to be part of the cut of the pit. It is possible that they represent pads for a structure around or perhaps over the pit.

Plate 15: section through pit 3333, facing northwest.

6.154 Section 35 (Fig. 7) showed that the pit had been partially filled or lined with a redeposited natural clay, which may have been processed (perhaps wedged), as it had far fewer inclusions than the natural clay on the site. This had then been overlaid by another redeposited natural clay deposit (**3350**), which had not been processed. Deposit **3349**, which constituted the main fill of the pit, represented a possible refuse backfill. It contained a large amount of organic matter (Plate 15) which was thought to represent degraded rooting, as the area over pit **3333** had been an enclosed copse or wood from as early as 1842 (Richardson 2012, fig. 5) until at least the early 20th century (*ibid.*, fig. 8). The only environmental data recovered from pit **3333** came from deposit **3349** and comprised 3.7g of coal/charcoal. The whole pit was finally capped by a dark silty clay that was likely to have been the result of natural silting or perhaps medieval or post-medieval plough action.

6.155 The function of pit **3333** is unclear. However, it is possible that it represents a clay-lined storage pit, with deposit **3350** representing a clay cap. Once the cap had been removed and/or the pit went out of use, it was backfilled with deposit **3349** and left to silt up naturally. However, the only available dating evidence is represented by the

coal/charcoal mentioned above and, as a result, this hypothesis cannot currently be supported.

6.156 Pit **3491** was located to the north of culvert **3211** and the east of curvilinear ditch **3485**. It had a shallow U-shaped profile with a flat base and measured c.0.87m in diameter, with a maximum depth of 0.25m (Fig. 7, section 36). It was interpreted as being Iron Age/Romano-British in date. However, due to an absence of stratigraphic connections to any other archaeological features, and given the high concentration of features in this area, its purpose remains unclear. It may have been part of an entrance structure related to ring-gully **3485** or **3486**/**3607**, yet the lack of similar postholes in the vicinity made it more likely to be a refuse pit, internally related to ring-gully **3484**. The deposits within pit **3491** both presented evidence for burning, although no evidence of a surrounding heat-affected area was seen, ruling out the possibility of a hearth pit (Plate 16). The pit was excavated in two stages, as rainfall revealed the lower primary deposit.

6.157 A single piece of animal bone was recovered from upper deposit **3507**, while deposit **3562** produced some fire-affected stone. The palaeoenvironmental samples taken from pit **3491** were particularly successful. The lower deposit 3562 did not produce any paleoenvironmental data, but **3507** was far more useful. The archaeobotanical specialist report (Appendix D) suggested that the assemblage collected from **3507** described the deposition of refuse from various domestic activities, including spelt crop processing (243 *Triticum spelta* grains were recovered), rubbish and bedding disposal. In addition to the grains, a total of 117.7g of coal/charcoal was recovered. In summary, the ecological assemblage from **3507** indicates a poor agricultural land surrounded by wetlands.

Plate 16: section through pit 3491, facing north.

6.158 To the north of pit **3491** was a posthole alignment, identified as group **3528** (Fig. 3), which measured c.2.5m in length. It comprises potholes **3462**, **3479**, **3467**, and **3475** and was aligned west-northwest by east-southeast (Fig. 5), with an average width and depth of 0.18m and 0.07m respectively. Posthole group **3528** may have formed a fence line. Their purpose, however, was unclear. Equally, while it seems probable that they are related to each other, their association with any other feature(s) was also unclear. It is possible that they formed part of a partition around pit **3491** or perhaps part of a structure connected to ring-gully **3486/3607**. Posthole **3478**, c.2.3m to the west-northwest of posthole **3475**, was on the same alignment, as was posthole **3534** and stakehole **3536**, located c.3.3mm west-northwest of **3478**. Together with posthole **3551**, located slightly to the north, these may form part of the same posthole group. However, this interpretation is speculative, as none of the postholes belonging to group **3528** produced any artefactual data and the palaeoenvironmental samples taken from them were all sterile.

6.159 A second potential cremation burial, identified as **3400**, was observed approximately 4.1m to the north of ring-gully **3912** and 2m to the east of enclosure ditch **3935**

segment **3363** (Fig. 5). The pit had a deep, steep sided U-shaped profile (Fig. 7, section 37), with two mid to dark grey fills (**3401** and **3402**).

6.160 This possible cremation burial had been heavily truncated by a modern land drain (Plate 17) meaning that the 1585g of coal recovered from a palaeoenvironmental sample of deposit **3402** could be a modern intrusion. The sample of ash wood recovered from **3400**, however, has been marked as a potential radiocarbon dating sample, as the fills of the possible burial were both charcoal rich. The grains recovered from the sampling of the pit incorporated grass seeds typical of meadow and/or cereal production.

Plate 17: section through possible cremation burial 3400 showing truncation by modern drain, facing west.

Post-medieval remains

Ditches and Furrows

6.161 A total of four agricultural furrows were encountered that ran east-west across the site. These features were not investigated in any great detail, although they were each

tested to ensure their categorisation. This narrow rig post-medieval cultivation was expected to be present across the site, based on the results of the geophysical survey conducted by TWMA (Scott 2012). It was anticipated that the ridge and furrow field system revealed through the analysis of the geophysical data from said survey (*ibid.*, 7) would extend southwards beyond the survey boundary into the East Wideopen Farm site. The furrows across the site had a wide, shallow U-shaped profile with an average width of 1.95m and an average depth of 0.18m.

Group 3940

6.162 Ditch group **3940** was a long, linear gully that ran east-west across the north of the site (Figs. 3 and 4). Initially thought to be part of the prehistoric enclosure phases, it seems to be aligned with the post-medieval ditches and the ridge and furrow system present on the site. It measured approximately 48.6m in length, with an average width and depth of 0.58m and 0.15m respectively. It had a narrow, shallow U-shaped profile with a single sedimentary fill (Fig. 7, section 39).

6.163 Ditch **3940** ran eastwards from its only existing terminal **3154** (Fig. 7, section 38) which had experienced a large amount of rooting truncation, cutting ditch **3066** at segment **3106**. Approximately 3.4m east from here, it was truncated by post-medieval culvert **3029**, and at segment **3342** it truncated linear gully **3338**, which may have formed an enclosure with ditch group **3939** (see above). To the east of this it progressed through segments **3247**, **3252**, **3265**, and **3256** before being fully truncated by modern activity to the immediate east of segment **3258**.

6.164 Segment **3254** was truncated by posthole **3265**, which was in turn truncated by posthole **3270**. Postholes **3265** and **3270** were both modern intrusions, likely to be part of a fence related to the stable blocks and/or paddocks that were present during the modern occupation of the farmhouse. The function of **3940** is unclear, although it may be related to the stone post pads identified as group **3134**, which were interpreted as part of the wooded enclosure to the north of the farmhouse seen in early mapping of the area (NAA 2016a, 10 and 12).

6.165 Some examples of hammerscale were recovered from deposits **3155**, **3246**, **3248**, and **3255**. A single piece of ceramic building material (CBM) was recovered from **3255**. The archaeobotanical assemblage recovered from **3940** was only notable for the c.

40g of oak charcoal recovered from deposit **3155** in terminus **3154**, which has been identified as viable for radiocarbon dating (Appendix D).

Other ditches

6.166 The only other post-medieval ditch encountered on the site was positioned approximately 3m to the north of **3940** and had a wide V-shaped profile measuring an average of 2.8m wide and 0.8m deep. It ran in exactly the same alignment from the northern to the eastern boundaries of the site for approximately 65m (Fig. 4). Segment **3127** truncated ditch **3066** segment **3125**. Ditch group **3938** was also truncated at segments **3236** and **3200** (cut by **3231** and **3199** respectively).

6.167 The function of this ditch is unclear, although it is possibly related to the post-medieval ridge and furrow observed across the site.

Buildings

Postpad group 3134

6.168 Group **3134** represented a set of twelve sandstone postpads aligned east-west c.1m north of ditch **3940**. It measured approximately 26m in length, with postpads **3092** and **3089** positioned c.2.3m north of the alignment at the eastern end. Each postpad was roughly square measuring an average of 0.55m in width. Each pad had a corresponding cut and clay packing material, except from postpad **3069**, which was laid on top of culvert **3029**.

6.169 The purpose of **3134** was unclear. However, it is possible that it forms an enclosure of some kind that may be related to the enclosed wooded area seen on early mapping of the area (NAA 2016a, 10 and 12). It seems clear from the mapping that the wood/copse was enclosed after the land had gone out of use as ridge and furrow farm land.

Culverts 3029/3033/3061

6.170 A northeast-southwest aligned post-medieval culvert in the north of the site was represented by **3029** (Fig. 4). Its walls were constructed of small sandstone blocks measuring approximately 0.4m by 0.6m and it was capped with flags measuring an

average of 0.65m by 0.55m, which were formed of the same material. At its southern limit, it appeared to have been redirected from its original course via culvert **3033**, which measured approximately 4.1m in length and was aligned southwest-northeast.

6.171 Culvert **3033** fed into culvert **3061**, which was aligned north-south and measured approximately 25.5m in length (Fig. 4). The northern portion of culvert **3061** had been partly truncated by post-medieval activity related to the farm, although in general culverts **3029**, **3033** and **3061** all had a good level of preservation. Both culverts **3033** and **3061** were constructed from the same material, although they were both of poorer constructed. It was speculated that culvert **3029** was diverted not long after its completion, although this could not be proven.

Walls 3035 and 3036/3037

6.172 Surrounding culvert **3033** were walls **3035**, **3036** and **3037**. Walls **3036** and **3037** were position approximately 1m to the south of culvert **3033** and were very likely parts of the same wall. Both were constructed from unfrogged handmade bricks without any stamp present. On average, the bricks measured 240mm by 90mm by 50mm. Taken together, **3036** and **3037** measured c.3.2m and 0.6m in length and width respectively.

6.173 Wall **3035** was aligned north-south and was located to the immediate north of the western end of culvert **3033**. It also extended approximately 1.5m to the south of culvert **3033** but had been heavily truncated at this point. It was constructed of sandstone blocks with fair quality facing edges and a large quoin block in the north-western corner, which measured 500mm by 350mm by 380mm. The average size of the sandstone blocks was 250mm by 200mm by 80mm. There was an inner course of bricks (**3040**) very similar to those from **3036** and **3037**, which measured c.1.3m in length. This inner course may represent a brick repair to wall **3035**, which appeared to have been truncated by culvert **3033**.

6.174 Walls **3035**, **3036** and **3037** were interpreted as being the northern walls of Byre 2 from the building recording carried out prior to the site demolition (NAA 2016a, 34-41).

Wall 3054

6.175 Wall **3054** was positioned to the immediate west of culvert **3061**, aligned east-west, and measured approximately 18.4m in length, 0.55m in width and 0.38m in depth, with a maximum of three surviving courses. It had been heavily truncated in its western portion with what appeared to be only demolition rubble surviving in the construction cut (**3052**). It was made from outer courses of faced sandstone blocks measuring 380mm by 260mm by 190mm on average, with a sandstone rubble core. It overlay culvert **3061** and ditch **3936** at segment **3926** (Figs. 4 and 6, section 12).

6.176 At the western end of wall **3054** were walls **3216** and **3217**, which appeared to have been joined to the southern side of wall **3054**. Wall **3216** was constructed of both sandstone blocks and brick of the same type as walls **3036** and **3037**. It is therefore possible that these walls were constructed around the same time, although it is impossible to be sure, as the bricks were handmade. Wall **3216** measured c.1.8m in length and 1.6m in width. Wall **3217** was initially interpreted as a wall; however, upon investigation there was also a drain to its west. It measured approximately 3.7m in length by 1m in width and was constructed of sandstone blocks measuring 500mm by 270mm by 100mm on average.

6.177 Wall **3054** appears to have been the northern wall of Foldyard 2, with **3216** and **3217** being part of the eastern wall of Byre 3 (NAA 2016a 43-6).

Wall 3299

6.178 Wall **3299** was positioned approximately 2.6m northeast of ditch **3932** segment **3873**. It measured approximately 6.7m north to south. At its southern end, it turned east for c.1.6m. It was constructed of sandstone blocks measuring an average of 200mm by 300mm by 300mm, with a course lime mortar. Only a single course survived, but in fair condition. It had been heavily truncated by an area of modern activity to its immediate east, which also truncated the western portion of ring-gully **3179** (see above). It was interpreted as representing the south-western corner of the farmhouse; however, upon further investigation it appears that it was too far south and was not present during the building recording undertaken prior to the farmhouse's demolition. As a result, its purpose remains unclear, although it may have represented a boundary wall for the front of the property that was later demolished, perhaps when the area to the south of the farmhouse was paved (NAA 2016a, 50).

Culvert 3298

6.179 Culvert **3298** was positioned to the immediate north of enclosure ditch **3932** segment **3903** (Fig. 4), which it truncated (see above). It measured approximately 19.6m east to west from the western edge of the site. Although the culvert itself measured c.0.75m in width, the area of disturbance surrounding it was approximately 4.1m wide. The reason for this is unclear, although a large number of service trenches were observed in this area, perhaps indicating that this represented the main service route into the property.

6.180 The culvert had been constructed of sandstone blocks measuring c.400mm by 120mm by 150mm, as well as handmade bricks measuring c.160mm by 90mm by 60mm. The culvert had been heavily truncated to the west and east, although it is possible that it serviced the farmhouse at its inception.

Rubble deposit 3292

6.181 Deposit **3292** represented hard packed rubble positioned approximately 2m to the south of culvert **3293**. It overlay enclosure ditch **3932** to the immediate south of segment **3903**. It measured c.8.1m east-west with a width of 1.1m and a depth of 0.35m. It was interpreted as being a possible foundation for a post-medieval road; however, this was speculative, and it could equally be a modern deposit.

Wall 3297

6.182 Wall **3297** ran north-south for approximately 16m, stopping immediately northeast of ditch **3936** segment **3703** (Fig. 4). It had an average width of 0.8m. Approximately 2m to the south of its northern end was a small segment measuring c.1m long by 0.7m wide. North of this, the wall appeared to have been repaired or extended using mostly brick, with some stone on the eastern face. The rest of the wall had been constructed using sandstone blocks that on average measured 300mm by 400mm by 300mm. The bricks present in the northern portion measured on average 150mm by 100mm by 70mm and had been bonded with a light, sandy lime mortar. The rest of the wall had a darker sandy lime mortar. A maximum of three courses of stone were present and four courses of the brick extension/repair.

6.183 It is probable that wall **3297** represented the base of the western wall of Byre 2 (NAA 2016a, 34-41), the western extension being where the north wall of Byre 2c/Foldyard 2 meets Byre 2 (*ibid.*, 41-2).

Group 3263

6.184 As mentioned in Section 3, the farmhouse included a gin gang for a horse driven mill that was attached to the eastern wall of Byre 2, which was likely originally to have been used as a threshing barn (Hardie 2011, 14). The 1897 OS map shows the gin gang had been removed by this date. Group **3263** represents the demolished brick central structure, which would have housed the engine and the gin gang track (**3261**), as well as the backfill of the track (**3262**). It was located to the immediate east of wall **3297** at its northern end (Fig. 4 and 5).

6.185 The central brick structure measured approximately 1.8m by 1.6m and had been constructed of handmade bricks measuring approximately 160mm by 90mm by 70mm. There were no indications of the engine mechanism and the structure had been reduced to a point where no evidence of the housing was observed. The gin gang track (**3261**) comprised a circular impression filled with a dark cindery material (**3262**), which probably represented some of the demolition material. Track **3261** measured approximately 7.5m in diameter with an average width of 0.8m and a depth of c.0.05m.

Plate 18: view of gin gang 3263, to the immediate east of wall 3297, facing northwest.

Culvert 3211

6.186 Culvert **3211** was located to the immediate south of ring-gully **3486**/**3607** (Fig. 4, detail A). It ran southeast from wall **3297** for approximately 10.3m, where it turned east for approximately 19.5m. It truncated ring-gullies **3484**, **3486**, and **3608**, as well as enclosure ditches **3934** and **3935**. It had a maximum with of 1.7m and a depth of c.0.4m. The retaining walls had been constructed from sandstone blocks with the capping made of sandstone flags, both the same approximate size as those from culvert **3029**. A modern ceramic pipe had been installed in the base, presumably at some point after its inception. It is likely to have served the farmhouse.

Walls 3213, 3214 and 3215

6.187 Walls **3213**, **3214** and **3215** were all situated to the immediate south of, and overlay, culvert **3211** (Fig. 5). They were each constructed of the same materials, namely sandstone blocks measuring c.420mm by 360mm by 180mm. Two courses of wall **3213** were observed in fair condition with an average width of c.0.68m. It and ran south from culvert **3211** for approximately 2.4m, where it abutted wall **3214**, which

was also observed to have two extant courses, again in fair condition. Walls **3213** and **3214** were both bonded with a light brown lime mortar; however, the bonding for wall **3213** also constituted some light orange clay inclusions. Wall **3214** had an average width of 0.5m and ran east from **3213** for c.5.2m, where it was abutted by wall **3215**.

6.188 Wall **3215** had two extant courses in poor condition, bonded with stiff orange clay. It ran south from wall **3214** for approximately 3.2m, with an average width of 0.55m. At its southern end, it overlaid ring-gully **3609** at segment **3602** (Figs. 5 and 7, section 24). It is likely that walls **3213**, **3214** and **3215** represent part of the southern elevation of the farmhouse.

Wall 3300

6.189 Wall **3300** was positioned to the immediate north of ditch **3932** segments **3854** and **3847**. It was aligned east-west, measuring c.5.7m in length by 0.55m in width with only a single course present. It truncated the northern edge of ditch segment **3854** and was constructed mainly of sandstone blocks and frogged bricks without any stamps. There were also three concrete piles measuring 0.5m in length and width, which housed steel I-beam girders. It is likely that these represented repairs to wall **3300**, which was probably part of the southern wall of Foldyard 1 (NAA 2016a, 31-4).

Wall 3301

6.190 Wall **3301** was situated approximately 6.7m to the east of ditch **3933** segment **3654**. It measured c.5.8m north-south with a width of 0.65m and depth of 0.89m. It had been heavily truncated during the demolition of the farmhouse, with three courses present, though of poor quality. It was constructed of sandstone blocks measuring c.150mm by 250mm by 300mm, which had been bonded with a mid brown sandy lime mortar. It is likely that it represented an internal north-south wall within stable 1 (NAA 2016a, 27-31).

Wall 3302

6.191 Wall 3302 was located in the eastern portion of the site, c.3.4m to the east of ditch **3933** (Fig. 4). It had only a single course extant at the time of excavation, which was in poor condition. It ran east for c.13.6m, where it then turned north for c.3.65m. At

its western end, it had a width of c.0.4m that expanded at its eastern end to 1m. It had a maximum depth of 0.35m and was constructed from sandstone blocks measuring c.160mm by 220mm by 200mm. It is unclear what structure it was attributed to, as no building was present in that area during the building recording and no structure is present in that area in any of the early mapping for the farmhouse.

Burials

6.192 There were two animal burials observed during excavation, both in the northern portion of the site.

Burial 3358

6.193 Burial **3358** was located approximately 0.3m east of pit **3333** (Fig. 4). It measured c.1.55m in length with a width and depth of 0.6m and 0.37m respectively. It contained two fills (**3376** and **3377**) with the burial (**3378**) within the upper deposit (**3377**). Deposit **3376** was a firm light grey brown clay with a depth of 0.13m, likely constituting a silting event, with deposit **3377** overlaying it. Deposit **3377** was a firm mid-grey clay with a depth of 0.25m. The majority of skeletal deposit (**3378**) appeared to consist of partly articulated long bones. Due to the sub-rectangular shape of burial **3358**, it was initially treated as a human inhumation burial; however, upon investigation it was revealed to be a deposit of animal bone, perhaps as part of a refuse deposit.

Plate 19: burial 3358 showing placement of skeletal deposit, facing northwest.

3336/3346

6.194 Burials **3336** and **3346** were located approximately 3.6m to the south of ditch **3938** segment **3200** in the north-eastern corner of the site (Fig. 4). Burial **3336** measured c.1.15m in length with an approximate width of 0.9m and depth of 0.1m. It contained a single fill **3337** into which the animal had been placed.

6.195 Burial **3346** was much larger, measuring approximately 1.8m long by 1.45m wide and 0.25m deep. It also contained a single fill into which the animal had been placed. Burials **3336** and **3346** were possibly part of the same feature, bisected by modern drainage. The deposits in both burials (**3337** and **3347**) were a mid brown grey clay. The skeletal deposit in burial **3336** consisted of the jaw and part of the skull of a medium sized grazing animal, likely to be a sheep, as well as some small long bones. The skeletal deposit in burial **3346** was much larger, constituting some of the rib cage, spine, scapula and possibly some long bones of what appeared to be an equid, which was arranged with the spine aligned west-east and curving to the south, with the rib cage to the north and scapula and long bones to the northeast. This was accompanied

with a number of other long bones, possibly from other equids, as well as other species.

6.196 Similar to burial **3358**, **3336** and **3346** were initially treated as possible Iron Age burials; however, further analysis of the bones made them more likely to be from the post-medieval period. It may be worth undertaking scientific dating in order to determine their phasing.

Plate 20: burial 3346 showing placement of skeletal deposits, facing south.

Other post-medieval contexts

6.197 Well **3165** was positioned approximately 2m to the east of enclosure ditch **3932** segment **3855** (Fig. 4). It was circular, measuring 1.46m in diameter. Its depth was not investigated. It was constructed of sandstone blocks measuring c.120mm in width by 300mm in length and was bound with a light crumbly sandy mortar. It had been backfilled by a loose dark red grey sandy deposit (**3169**). It was not present during the building recording undertaken by NAA (2016a) and it does not appear on any early mapping of the site.

6.198 The bases of two post-medieval barrels were observed in the eastern portion of the site. Barrel **3681** was positioned 1.9m north of wall 3302. It measured c.0.7m in diameter with a depth of 0.2m. It had been backfilled with deposits **3696** and **3697**. Deposit **3697** was a soft dark brown deposit of wooden fragments, which appeared to constitute the remains of the at least some of the upper part of the barrel. Deposit **3696** was a soft light grey clay silting deposit, from which a large amount of 19th-century pottery was recovered along with some glass, metal and CBM fragments.

6.199 Barrel **3719** was situated c.3.5m north of ditch **3933** segment **3640** and c.7.8m west of barrel **3681**, truncating the upper fill of ditch **3933** (**3927**). It measured c.0.6m in diameter with a depth of 0.4m. Deposits **3740**, **3741** and **3742** all produced 19th-century pottery, with the majority recovered from **3741** (Appendix F). Fragments of bone were also recovered from **3740** and **3741**. Deposit **3742** also produced some large pieces of stone, which did not appear to have been worked. Barrels **3681** and **3719** appeared to have been used as refuse receptacles during the post-medieval period and it is likely that they were later partly removed, either when they were full or perhaps during construction work.

6.200 Pit **3361** was positioned to the immediate north of ditch **3933** segment **3468**. It measured c.1.78m in length with a width of 0.36m and a depth of only 0.05m. It was initially interpreted as a possible prehistoric fence line to the north of ditch **3933**; however, deposit **3362** produced small fragments of post-medieval/modern brick. Similarly, pit **3372**, positioned c.4.5m to the east of ditch **3933** terminus **3513**, was initially interpreted as a possible Iron Age pit, but deposit **3373** also produced small fragments of brick.

6.201 Pit **3684** was positioned to the immediate north of barrel **3719**, truncating enclosure ditch **3933** segment **3669**. It measured approximately 6m in width and 3.7m in length with a depth of 0.18m. It was backfilled with deposit **3685**, which, similar to barrel backfill deposit **3741**, produced a large amount of 19th-century pottery. It is plausible that, like barrels **3681** and **3719**, pit **3684** was used as a refuse pit, predominantly for the disposal of pottery.

7.0 DISCUSSION

7.1 The archaeological features uncovered during this phase of archaeological mitigation works have confirmed the presence of prehistoric remains at East Wideopen Farm,

which survived to a level far greater than was expected. In addition, the prehistoric features observed have expanded the extent of the known prehistoric settlement within the area. Coupled with the settlements to the south (ASDU 2014; NAA 2016b), and the aforementioned cropmarks to the west and north of the site (Fig. 1), these settlement areas describe the evolution of an extensive pattern of occupation surrounded by a field system network, from unenclosed through to fully enclosed Iron Age/Romano-British settlement. It is plausible that the enclosed settlements recorded by ASDU (2014) and at East Wideopen Farm (both phases 2016 and 2017), as well as the cropmarks to the north of the site represent satellite settlements, focused around a central enclosure. Whilst this may be speculation, the expanse of the Iron Age/Romano-British settlement pattern at East Wideopen spans an area approximately 1.1km north to south and 400m east to west.

7.2 Much like Pegswood Moor, the field system arrangement describes a multiphase occupation pattern (Proctor 2009, 73). Further to this if the archaeological features from this and earlier excavations at East Wideopen (ASDU 2014; NAA 2016b) are considered together with the settlement identified through geophysical survey at Gardener's House (Biggins *et al.* 1997, 46) and the Iron Age/Romano-British settlement uncovered by WAA at Dinnington (2016, 26), as well as East and West Brunton (Hodgson *et al.* 2012, 48), these settlement locations describe an area of extensive occupation throughout the Iron Age/Romano-British period. The prehistoric remains from this excavation are therefore of regional importance, as they increase the corpus of known activity within the area and aid in the understanding of a large expanse of Iron Age landscape.

7.3 The field system uncovered on the site appears to have been part of the same Iron Age/Romano-British field system found at East Wideopen Farm 2016. The alignment of ditch groups **3937** and **3938** are very similar to ditch groups **195**, **196** and **346** from the 2016 excavation (NAA 2016b, 8-11) and it is possible that another droveway/trackway was present between ditch group **3932** at East Wideopen Farm 2017 and ditch groups **750**/**346** at East Wideopen Farm 2016 to the south, with the distance between these ditches being approximately 16.4m, which is similar to that seen at Blagdon Park 2 and Pegswood Moor (Proctor 2009, 67; Hodgson *et al.* 2012, 29). These ditches may also be directly linked through ditch group **822** from East Wideopen Farm 2016, which is the same as ditch **3892** entering from the south of the East Wideopen Farm 2016 site. However, this is speculative and importantly no

corresponding ditch was observed to the north of ditch group **346** at East Wideopen Farm 2016. It is also possible that, as stated above, ditch **3892** forms part of an earlier field system, together with ditches **3935** and **3066** forming a north–south boundary related to ditch **3938**.

7.4 The field system ditches from both the 2016 and 2017 phases of excavation at East Wideopen Farm are on a similar alignment to the phase 6 enclosure ditches and the phase 7 possible iron age western boundary ditch found by ASDU (2014, 44-46). If the boundary ditch from that excavation can be considered to be Iron Age and it cuts the enclosure ditch, it is possible that, if it forms part of the wider field system seen in both East Wideopen Farm and Farmhouse, the enclosure there was constructed first, and the field system developed around it. However, this cannot be fully substantiated, as the boundary ditch from the ASDU excavations may be a later extension or compartmentation of the field system. Therefore, it is still unclear as to whether the field system informed the position and alignment of the enclosed settlement(s) or vice versa. Given the c.600m distance between the ASDU enclosure and that of East Wideopen Farm, it is probable that the field system was in use whilst the open/unenclosed settlements were in various stages of use and the later ditches of the enclosed settlement had to conform to the existing alignment.

7.5 The visibility of both field system ditch groups is, however, limited and they have no contextual relationship with the settlement. This means that a good understanding of the association between the field system and the settlement is impossible to reach, at least within the context of this site. That being said, the terminal end (**3734**) of ditch group **3937**, respected the position of enclosure ditch group **3933**. It is therefore possible that the latest observed phase of the enclosed settlement pre-dates the surrounding field system. It is unclear whether this extends to the wider field system observed at East Wideopen Farm to the south. Certainly, it would mean that at least these two ditches (**3933** and **3937**), if not the rest of the field system, are likely to be contemporary.

7.6 The limited extent of the site meant that the field system ditches could not be fully explored. The heavy truncation caused by the post-medieval activity in the south-eastern area of the site further limited the available archaeological deposits from ditch group **3937** and it is possible that it is not part of the field system and is actually another enclosure ditch, with any occupational deposits removed by post-medieval

activity related to the farm. This would be further corroborated by north-northeast to south-southwest aligned ditch **3136/3171**. The ground level between the northern part of the of the site and the southern part of the site prior to stripping dropped by only 0.15m, meaning that the disparity in depth between ditch groups **3938** and **3937** cannot reasonably be attributed to the topography.

7.7 On a similar note, ring-ditch **3609** is also considerably deeper and wider than the other ring-gullies present on the site, despite the progressive truncation of the post-medieval buildings in that area. This could be credited to the roundhouse associated with it being intended to be a more permanent/significant installation.

7.8 As stated above, ditch group **3939** may be related to ditch **3066**, as well as ditch group **3934** and/or **3935**. This would have formed a rectilinear enclosure measuring 46.2m in length and 16m in width, with gully **3275/3320/3281** and its associated possible postholes being a possible fence line between **3939** and **3934/3935**. It is possible that this enclosure and the preceding phases pre-date the surrounding field system, as ditch group **3938** does not appear to respect the position/alignment of **3939**. Again, ditch group **3939** has no stratigraphic relationship to any other archaeological feature within the site, meaning that any possible relationships are hypothetical at best.

7.9 As indicated above (Section 6), the progression of enclosure ditches begins with **3934**, which is truncated by ditch **3935**, which formed a potentially open rectilinear enclosure. This was then cut by ditch **3936**, which appeared to work in conjunction with ditches **3932** and **3933** to form an enclosed settlement, with sub enclosures to the west. The position of ditch **3933** terminus **3513**, along with the overlap of ditch **3936** with **3935**, makes it likely that ditch **3935** was discernible in some form when the final enclosure phase was initiated.

7.10 Enclosure ditches **3932/3933** and **3936** have a similar form and size to that encountered at Burradon (Jobey 1970, 55), with a gentle U-shaped profile measuring approximately 3m in width and 1m in depth. Ditch **3935** also displays this trait, but only in its western portion. It is possible that the eastern portion was heavily truncated, as the lower fills from the investigative slots in the west were also observed in those in the east. Enclosure ditches **3934** and **3939** are both much smaller than enclosure ditches **3932/3933**, **3935**, and **3936**. It is possible that as the development of the enclosure system on the site progressed, a need for larger and/or deeper ditches

also developed. This may have been due to a need to control livestock to a greater degree, also exhibited by the smaller internal enclosures in the western portion of the main enclosure.

7.11 The final enclosure sequence formed by ditches **3932**/**3933** and **3936** measured approximately 45m north-south by 42m east-west, with a smaller sub-enclosure in the south-western corner that measured approximately 23m north-south by 16m east-west. The enclosure formed by ditch **3935** measured approximately 12.5m east-west by 27m north-south. This is comparable to the rectilinear enclosure encountered at East Wideopen Farm to the south, which measured 34m north-south and 13m east-west (NAA 2016b, 29). Blagdon Park 2 had a similar set of enclosures and sub enclosures (Hodgson *et al.* 2012, 22), although to a larger degree.

7.12 The final rectilinear enclosure phase observed at East Wideopen Farm is a well-documented Iron Age/Romano British settlement type on the Northumberland coastal plain. Various excavations have established that these rectilinear enclosures often followed an unenclosed settlement phase. Radiocarbon dating from nearby settlement sites at East and West Brunton and Blagdon Park 2 have identified the shift from unenclosed to enclosed settlement to be around 200BC (Hodgson *et al.* 2012,186-189). Burradon, Hartburn and Pegswood Moor all followed a similar enclosure sequence (Jobey 1970; 1973; Proctor 2009). With this in mind, it may be beneficial to undertaking scientific dating for the enclosure ditches to cement the settlement sequence. This, coupled with radiocarbon dates from the ring-gullies present on the site, may help to connect the phasing of the ring-gullies to the enclosure sequence, as stratigraphically the majority of the ring-gullies were placed before ditch **3935**. Ring-gully **3488** was truncated by enclosure ditch **3933**; however, **3933** is considered to be part of the final phase of occupation. Only ring-gully **3179** can be considered to be contemporary with ditch groups **3932**/**3933** and **3936**. However, this is not based on a stratigraphic relationship, but rather the position of these features (see above).

7.13 The majority of the ring-gullies observed during the excavation were clustered in the centre of the site, to the immediate east of enclosure ditch **3935** (Fig. 5). Ring-gullies **3484**, **3485**, **3486**/**3607**, **3487**, **3606**/**3608**, **3912** and **3913** are all stratigraphically earlier than enclosure ditch **3935**. Only ring-gully **3609** is earlier than ditch **3934**. The majority of the ring-gullies uncovered during the excavation belong to the same

unenclosed sequence as ditch **3934**. It is also possible that ditch **3934** truncated these ring-gullies, although the position of ditch **3935** has removed this relationship.

7.14 Within the concentrated area of ring-gullies, a number of deposits of fire-affected stone were recovered. It is likely that these represented dumps of pot boilers or perhaps edge stones for a fire pit. This could further support the idea of a settlement decommission/abandonment/clearing, perhaps initialised each time a roundhouse was abandoned.

7.15 The average internal diameter of the ring-gullies was approximately 7m (Table 1). This is similar to those from the East Wideopen Farm 2016 phase to the immediate south (NAA 2016a, 31). The roundhouses encountered at East Wideopen tended to be a slightly larger, with most being 9m or more (ASDU 2014, 49). The majority of the ring-gullies encountered on the site had an east facing entrance, with only **3486/3607** and **3485** displaying a southeast facing entrance.

Table 1: Ring-gullies

Ring-gully	Internal diameter	Entrance
3179	5.25m?	East
3484	8m?	East
3485	6.5m?	Southeast
3486/3607	6.5m	Southeast
3487	6.85m?	East
3488	5.65m?	East
3606/3608	10.3m	East
3609	8.4m	East

7.16 There was very little prehistoric pottery recovered from the site, consisting of only five sherds from a maximum of four vessels. Two fingernail impressed rims were recovered from ring-gully **3609** segment **3796**, together with a flat-topped rim sherd. These were probably part of an open jar. This jar type spanned much of the pre-Roman Iron Age and the Romano-British period and there is good evidence that it dates from between the 2nd century BC and 4th century AD (Appendix B). This means that we can comfortably place ring-gully **3609** within these dates. Typological dating alone, however, is insufficient to ascertain the date of the site and radiocarbon dating should be conducted on selected samples from multiple contexts.

7.17 The quernstone recovered from ring-gully **3607/3486** had been deposited on its side. It was accompanied with a large amount of stony rubble, some of which had been fire affected. The quernstone itself had not been affected by any heating process. The

specialist report (Appendix C) indicated that the grinding surface had been removed, as well as the hopper top, and it had then been radially quartered. It was suggested that, should the quernstone could be proven to be ritually deposited, it may conform to the quernstone disposal traditions seen further south in Yorkshire. There is no particularly convincing evidence for this, however, and it is more likely that the quernstone was simply deposited as part of a refuse deposit.

7.18 The majority of the post-medieval features uncovered on the site were directly related to the post-medieval farmhouse that was extant prior to its demolition for development of the site. Evidence for narrow ridge and furrow farming to the north of the site had been identified by geophysical survey (Scott 2012). This was confirmed by subsequent trial trenching (Muncaster 2012). The furrows observed running east-west across the site are a part of the same post-medieval field system, which had been postulated to continue into the site from the north (Scott 2012, 7).

7.19 The boundary for an enclosed copse to the north of the farmhouse, seen on early mapping of the site (Richardson 2012, Figs. 5 and 6), was identified as possibly related to ditch **3940** or post-pads **3134**. This enclosed wood had gone by 1920 (*ibid.*, fig. 8).

7.20 The burials encountered in the north of the site, in particular the equid specimens, are probably related to the stables located to the east and north of the farmhouse (NAA 2016a, Fig. 48). During the Great Depression, many farms turned to horse breeding in order to substitute the falling prices of arable produce (Hardie 2011, 20) and the large number of equid remains from the site may be related to this.

7.21 The archaeobotanical assemblage recovered from prehistoric features across the site, coupled with the presence of field boundary ditches **3937** and **3938** and those from East Wideopen Farm, suggest a widespread and prolonged farming practice during the Iron Age/Romano British period.

7.22 The presence of coal samples from a large number of investigative slots across the site has been explained by the metal production residue specialist report (Appendix G) as residue from the activity of the Wideopen colliery. On the 1864 six-inch Ordnance Survey map of Northumberland LXXXVIII, the colliery is clearly visible in operation to the south of the site. The farmhouse appears to be well developed with most of its long barns already extant along with the circular horsegin building (NAA 2016a, 11). The farmhouse is also clearly visible, with what appear to be some ancillary buildings

on an estate plan from 1757; it is also marked as "East Farm" on Armstrong's map from 1769 and is visible in a similar form to that of 1864 on the 1842 Tithe map, which also shows the colliery, sunk in 1825, to the south (Richardson 2012, Figs. 3, 4, and 5 respectively). It is unclear, therefore, how these coal samples worked their way into what are surprisingly well preserved, sealed contexts, underneath an already extant and active farmhouse.

8.0 ASSESSMENT OF THE SITE ARCHIVE

Initial analysis

8.1 As part of the assessment of the site records, the initial archive analysis for the excavation phase of work has been undertaken. Provisional matrices have been drawn up for elements recorded, which show the stratigraphic relationships between the individual contexts. Initial dating from the recovered artefacts has been integrated into these to begin to draw together the separate strands of information collated during the fieldwork and to allow the site to be divided into chronological phases.

8.2 Plans and sections have been checked against context record sheets and catalogues to ensure full cross-referencing. The photographic record produced during the fieldwork was mounted and catalogued by frame number in preparation for its deposition within the site archive. Catalogues of context, illustration records and digital and print photographs have been input onto digital spreadsheets. The drawings produced on site were scanned and digitised in AutoCAD software. Databases of the artefacts and environmental samples recovered have also been produced.

Quantification of site archive

8.3 During the course of the fieldwork, the finds and environmental samples were transported to the offices of NAA. Environmental samples were catalogued and processed in preparation for specialist assessment (Campbell *et al.* 2011). Finds were cleaned, identified, marked (where appropriate), catalogued and properly packed for long-term storage, in accordance with national guidelines (English Heritage 1995; Watkinson and Neal 2001; CIfA 2014c).

8.4 An initial quantification of each category of the site archive has been made. Quantifications of environmental samples and the principal categories of recovered finds have also been carried out. These are listed in tabular form below.

Table 2: quantification record of site archive.

Record Category	No.
Context descriptions	941
Drawing sheets	99
Plans	125
Sections	241
Black and White photographs and negatives (films)	14
Digital images	1890

Table 3: quantification of environmental samples and recovered finds.

Finds Category	No.
Worked lithics (fragments)	1
Pottery (sherds)	350
Bone (fragments/weight g)	79/9239.9g
Environmental samples	297
Metal finds	15
Glass fragments	39
CBM fragments	67

Recommendations for further work

8.5 Further work needs to be carried out on refining the dating of the artefactual material in order to provide a more comprehensive understanding of the site. This should be performed in conjunction with detailed analysis of the stratigraphic and spatial interrelationships of the features and deposits that comprise the site record.

8.6 Further analysis of the archaeological record and synthesis of specialist information will be directed towards establishing a more comprehensive interpretation of the site with evidence-led conclusions clearly stated within an analysis report. Where evidence exists, these interpretations will include considerations of the chronology of the site, how the site related to its landscape context, what evidence (if any) for occupational, economic (industrial or agricultural), dietary or ritual activities exists, and where possible how these activities developed over time. Analysis of available evidence for the wider environment during the chronological periods recorded will also be considered, as well as how this changed through time. Where the data allows, discussion of concepts, such as identity and material culture, will be presented. Research will be undertaken so that this analysis and the interpretations reached include the most recent academic information.

8.7 The results from both the 2016 and 2017 phases of excavation at East Wideopen Farm will be collated into a single analysis report. This analysis will include a comparison of the evidence gathered with similar sites recorded in the north-east. Depending on the results of the analysis, it may also be appropriate to set the evidence recorded at East Wideopen Farm phases 2016 and 2017 within its national context. In this way, the results of the excavation can be understood within their wider landscape, regional and national settings.

Publication

8.8 It is recommended that the results of the archaeological investigations be published within a regional journal, such as *Archaeologia Aeliana*. This report will form a short, synthesised summary account of the archaeological remains, the finds and the environmental data set within a local, regional or national context. This will be the final report on the archaeological investigation of both phases of excavation at East Wideopen Farm (2016 and 2017).

Storage and curation

8.9 The written, drawn and photographic records are currently held by NAA. Analysis of the palaeoenvironmental samples was undertaken by NAA. Artefacts recovered from this process have been assessed by the relevant specialists and returned.

8.10 Subject to finalisation of discard policies (particularly with respect to environmental material), it is intended that the site archive (paper records, artefactual and environmental material) will be transferred to Tyne & Wear Museums and Archives at the Great North Museum, Hancock, Newcastle. All material has been appropriately packaged for long-term storage in accordance with both national guidelines and to the requirements of the museum.

8.11 Archiving work will be carried out in accordance with local policy (TWAM 2015) national guidelines (Brown 2011; CIfA 2014d) and the archive will be assembled in accordance with the specifications set out by English Heritage (2008a) and further by Historic England (2015).

8.12 The site archive will contain all of the data collected during the investigative work, including records, finds and environmental samples. It will be quantified, ordered, indexed and internally consistent.

8.13 Adequate resources were provided during fieldwork to ensure that records are accurate and internally consistent. As detailed above, archive consolidation was undertaken immediately following the conclusion of archaeological fieldwork. As part of this consolidation:

- the site record was checked, cross-referenced and indexed as necessary;
- all retained finds were cleaned, conserved, marked and packaged in accordance with the requirements of the recipient museum;
- all retained finds were assessed and recorded by suitably qualified and experienced staff. Pro forma recording sheets were used. Initial artefact dating was integrated with the site matrix; and
- all retained environmental samples were processed by suitably experienced and qualified staff and recorded using pro forma recording sheets.

8.14 In addition to the site records, artefacts, environmental remains and other sample residues, the archive will contain:

- site matrices where appropriate;
- a summary report synthesising the context record;
- a summary of the artefactual record; and
- a summary of the environmental record.

8.15 The integrity of the primary field record was preserved. Security copies were maintained where appropriate.

8.16 The archiving of any digital data arising from the project was undertaken in a manner consistent with professional standards and guidance (ADS 2011).

8.17 An online OASIS form was initiated immediately before fieldwork commenced and key fields will be completed on the Details, Location and Creators forms. Upon completion of the fieldwork, all parts of the OASIS online form were completed for submission to the Tyne and Wear Historic Environment Record. This will include an uploaded .pdf version of the entire report (a paper copy will also be included with the project archive). The OASIS form will be validated by Tyne and Wear County Council Historic Environment Service once they have received the report, which will become a public document upon submission.

8.18 A copy of all reports and the full site archive will be deposited with Tyne & Wear Museums and Archives at the Great North Museum, Hancock, Newcastle on completion of the final report. Deposition will be subject to the agreement of the client. Deposition shall be in accordance with written guidelines on archive standards and procedures (Society of Museum Archaeologists 1995). The archaeological contractor has liaised with the museum curator regarding requirements for ordering, boxing and labelling the site archive.

8.19 In addition to the deposition of the archive, copies of all relevant reports will be deposited with the Tyne and Wear Historic Environment Record, the English Heritage Regional Advisor and the National Monuments Record.

8.20 Unless agreed otherwise with the local planning authority, the archaeological condition will be considered discharged once the archive and all reports, including any warranted publication report, have been agreed with and deposited.

9.0 SPECIALIST FINDS ASSESSMENTS

Pottery (Chris Cumberpatch; Appendix B)

Archaeological potential

9.1 The handmade pottery consisted of five sherds that come from a maximum of four vessels. Two fingernail impressed rims were recovered from deposit **3798** fill of ring-gully **3609** (cut **3796**). These were probably part of an open jar(s), along with a flat-topped rim sherd that was also probably from an open jar.

9.2 Three sherds of heavily abraded medieval pot were also recovered. One was found during cleaning of the site and was assigned to demolition deposit **3003**. The other two came from **3860** and **3884**, the final fills of ditch **3932** (cuts **3854** and **3879** respectively) in the southern portion of the site. These finds are most likely to be modern intrusions due to the heavy truncation and activity in this area of the site. This lack of medieval pottery means that it is likely that there was not a lot of activity on the site during the medieval period.

Recommendations

9.3 It is recommended that the assemblage is deposited in its entirety, as although it is small its unusual nature and the presence of rare, decorated vessels including a bowl and a probable jar make it worth further research in the future.

Worked stone (John Cruse; Appendix C)

Archaeological potential

9.4 The worked stone assemblage consisted of two pieces, RF001 and RF002.

9.5 RF001 is a beehive quern from deposit **3593** fill of ring-gully **3486** (cut **3592**). The grinding surface edges and upper section of the hopper have been deliberately removed and then the core was quartered. There are similar types of quern found at Pegswood Moor, the earlier East Wideopen excavations conducted by ASDU (2014), East Brunton (this example also came from a ring-gully), West Brunton (multiple examples from here) and Blagdon Park 2.

9.6 RF002 came from the same context and was initially interpreted as a secondary smaller fragment of the same quern. However, detailed inspection has shown it to be a natural stone block.

Recommendations

9.7 It is recommended that RF001 be illustrated, as a reconstruction drawing is likely to be more informative than a photograph.

Archaeobotany and molluscs (Jonathan Baines and Hannah Russ; Appendix D)

Archaeological potential

9.8 The assemblage recovered from the paleoenvironmental samples, whilst small, described a surprisingly broad floral diversity. Although no pulses, fruit or herbs were identified, the excavated features did reveal a number of cereal grains, arable weeds and representatives of the wider surrounding vegetation. The charcoal was mostly oak (indicating a probable abundance of oak in the surrounding woodland) and all came from native species. It was also predominantly roundwood rather than large timbers.

9.9 Pit **3491** had a large assemblage of spelt grains (243), which were charred from dehusking. In addition, arable weeds were represented as a rubbish disposal, along with rushes, which were used for human and animal bedding. These species all point towards the poor quality of the agricultural land and nearby wetlands. The spelt wheat may have been cultivated further away and brought onto the site (hence the need for onsite dehusking). Forage waste appears to have been disposed of through fire (seen through the presence of large seeded grasses).

9.10 Gypsywort from ring-gully **3913** terminus **3385** also suggests a wetland character to the site and/or its surroundings. Ring-gully **3609** terminus **3792** had barley and wheat present, along with agricultural weeds and other cereals. There was also some possible thatch material (seeds of curly dock/heathgrass in rubbish burning event) found in this terminus. Ring-gully **3486** cut **3540** produced onion and vetch.

9.11 Possible cremation burial **3400** contained emmer wheat along with 1,585g of coal, demonstrating that coal was not only used for domestic heating purpose only on this site. However, some of this could be an intrusion from the modern pipe the runs through the feature. Other coal fragments come from postholes **3473** (to the east of ring-gully **3913**) and **3772** (part of entrance structure to ring-gully **3609**).

Recommendations

9.12 It is recommended that the remaining paleoenvironmental samples are processed, largely because of the botanic diversity from pit **3491**.

Animal bone (Lizzie Wright; Appendix E)

Archaeological potential

9.13 The identifiable specimens from the assemblage were cattle, sheep/goat, pig and equid, mostly of post-medieval date. There were, however, a small number of Iron Age examples.

9.14 Iron Age human activity encountered on the animal bone assemblage is represented by a burnt sheep/goat specimen in deposit **3137**, in north-east to south-west aligned ditch **3136**, located in the south-east corner of the site. Some evidence for gnawing was seen on a medium sized mammal specimen in deposit **3561** (ring-gully **3485** cut **3560**) but was caused by a rodent and therefore cannot be considered anthropogenic in origin.

9.15 Burial **3346** (filled by **3389**) was initially considered to be a single articulated specimen; however, detailed inspection has revealed equid, cattle, pig and cattle/red deer specimens. There were at least two equid individuals and it is not clear whether they were articulated. Burial **3336** (filled by **3337**) was considered to be part of the same burial as **3346**. It contained pig (at least two individuals) and sheep/goat (at least one). Burial **3358** (filled by **3378**) contained the hind limbs of one cattle individual.

9.16 The prevalence of horse remains on the site could be explained by horse breeding activity at the farm (NAA 2016a, 13), as well as the horse gin gang and various wagonways related to the colliery.

Recommendations

9.17 It is recommended the assemblage is combined with that from East Wideopen Farm 2016 for further analysis. The focus of the analysis should be on animal bone groups and ageing/biometrical information in order to maximise the potential for useful data. In addition, it would be prudent to compare the joint assemblage with others in the region.

Post-medieval pottery (Charlotte Britton; Appendix F)

Archaeological potential

9.18 The post-medieval pottery assemblage resembles a cross section of 17th to 19th-century domestic wares. The sherds were mostly recovered from the two barrels found on the site (**3696**, **3695** and **3741**, **3719**) lending credence to the initial idea that these were used as refuse dumps during that time.

9.19 There were some examples of maker's marks from J. Carr & Co (North Shields). By the middle of the 19th century, J. Carr & Co had started to produce a number of different wares and it is possible that they produced a large amount of the assemblage, or it was certainly produced locally.

9.20 There were also examples of post-medieval pottery from the Midlands, dating to a little earlier than that from local manufacturers.

Recommendations

9.21 Whilst the assemblage is quite large and in very good condition, it is for the most part highly characteristic of the period and region. As a result, it bears little research value. The assemblage should be discarded, apart from the examples with stamps, which should be retained.

Metal production residues (Roderick Mackenzie; Appendix G)

Archaeological potential

9.22 The fuel recovered during excavation and environmental sample processing is predominantly represented by fragments of coal. A small number of fragments were derived from fuel ash slag (also known as clinker). Most of the fuel coal found is categorised as slack, a waste or cheap coal, likely from the colliery at Wideopen. The colliery had a number of coal fired boilers used to power machinery, one of which was uncovered during the NAA 2015-2016 excavations at East Wideopen Farm (NAA 2016b, 31). This could explain the presence of the clinker.

9.23 The hammerscale is mostly of natural occurrence. However, some spheroidal hammerslag, usually produced during primary smithing, expelled from the bloom

(English Heritage 2001, 14), was found in deposit **3439**, the upper fill of ditch **3426**, and could be a modern intrusion from the gin gang that overlays it.

9.24 The provisionally identified industrial waste was a mixture of both natural geological material and clinker. Finally, the fired clay recovered from the site was predominantly from roof tiles/handmade bricks.

Recommendations

9.25 The material in the assemblage is of very limited research value and offers no further scope for analysis. It is therefore recommended that the assemblage is disposed of.

Finds (Elizabeth Foulds; Appendix H)

Archaeological potential

9.26 The remaining finds were collated into a single assemblage consisting of glass and iron artefacts that were primarily indicative of post-medieval date. The assemblage reflects the farm and colliery activity already known on the site.

9.27 A piece of glass recovered from deposit **3176**, the fill of possible ditch **3936** terminus **3175**, is post-medieval, putting the dating of this deposit into contention. However, the shallow depth of the feature and its heavily truncated nature could mean that this find is a post-medieval intrusion. In contrast to this a piece of post-medieval glass retrieved from deposit **3747** helps to prove the post-medieval or even modern date of ditch **3746**.

Recommendations

9.28 The assemblages of the 2015-2016 and 2016-2017 excavations should undergo a combined analysis, which may help to refine the date of the different activities at the site.

10.0 STATEMENT OF POTENTIAL

10.1 The archaeological features found at East Wideopen Farm during the strip, map and record exercise are a significant addition to the corpus of known archaeology in the

region and, in conjunction with the earlier 2015-2016 NAA excavation results, require publication. One area consistently identified in regional research agendas and other guideline documents is an under-reporting of fieldwork from developer-funded projects. The need to make available the results of smaller interventions and to publish larger developer-funded work is stated both at regional and national level (English Heritage 2010a, 17).

10.2 The occupational evidence found in the form of the rectilinear enclosure ditches and ring-ditches is of local/regional importance and adds to the corpus of similar sites found at nearby Burradon (Jobey 1970), East and West Brunton (Hodgson *et al.* 2012) and, perhaps most significantly, the enclosed settlements found approximately 520m to the south-southwest (ASDU 2014) and 50m to the south (NAA 2016b). When considered together with the latter two settlements (within the development area), the site can be viewed as a part of a much wider settlement pattern within the area, occupied over a long period of time, which displays the development of agricultural manipulation of the landscape, as well as the evolution of settlement types.

10.3 The stone and brick post-medieval buildings found across the site are of local importance, as they largely represent the remains of the farm that formerly occupied the site (NAA 2016a). The only exception to this is the gin gang located to the immediate east of wall **3297**. As stated above, the gin gang was known to exist but had been removed prior to 1897 and, as such, had not been recorded by the building survey conducted by NAA in 2016. Despite this, the research potential of these post-medieval remains is limited, as they are typical of period within this area and could not materially add to the baseline historic data.

10.4 Paragraph 141 of the NPPF states that there is a requirement for 'developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible'. As part of this, public engagement and interpretation should be considered to advance the public understanding and appreciation of the historic environment.

10.5 The potential for community engagement is at the least moderate, particularly with the archaeological data gathered from across the development area. Given the high public interest in both prehistoric and industrial heritage in the region, there would be potential for public engagement and interpretation. This could include permanent

display boards within the final development and lectures associated with any excavation works.

11.0 CONCLUSIONS AND RECOMMENDATIONS

11.1 The archaeological mitigation works carried out at East Wideopen Farm have revealed regionally significant later prehistoric remains comprising part of an extended field system, a large rectilinear settlement enclosure that had experienced various phases of development, along with associated occupational evidence in the form of ten ring-gullies, one of which contained Iron Age/Romano-British pottery. Deposits containing further similar pottery and a fragment from an Iron Age/Romano-British beehive quern came from other ring-gullies. Two potential cremation burials were encountered, one of which was within the interior of ring-gully **3609**. Palaeobotanical remains, including charcoal/coal and grains from arable crops and weeds, as well as wetland plants, were also recovered, along with a large assemblage of charred spelt grains from pit **3491**.

11.2 The archaeological features were suggestive of later prehistoric occupation, the focus of which lay within the centre of the stripped area. A total of twelve post-medieval walls associated with the farmhouse and ancillary buildings were also uncovered along with four culverts and a possible road surface or foundation. In addition to this, two post-medieval ditches were recorded, as well as six post-medieval narrow rig furrows.

11.3 Assessment of the significance of the individual categories of artefacts and ecofacts, and the recorded evidence as a whole has highlighted that the site is of regional significance, with the potential to add important information into national academic debates.

11.4 Further analysis is therefore warranted, including:

- further analysis of the prehistoric pottery assemblage in conjunction with the assemblage from previous phases of excavation within the development area, in line with guidelines set out by the Prehistoric Ceramic Research Group (1992);

- further analysis of the animal bone assemblage, also in conjunction with the assemblage from previous phases of excavation within the development area as detailed in Appendix E;

- radiocarbon dating of suitable material from selected deposits; and

- illustration of: the quernstone fragment as detailed in Appendix C.

11.5 The artefactual assemblages recovered should be packaged for long-term storage in accordance with both national guidelines and to the requirements of the receiving museum. The site archive (paper records, artefactual and environmental material) will then be transferred to the Great North Museum, Newcastle-Upon-Tyne for deposition.

11.6 Due to the significance of the results of the mitigation works, and in line with regional and national guidelines (English Heritage 2010b, 17; 2011, 15-6; Petts and Gerrard 2006, 135-143), the investigations should be published in a regional journal such as *Archaeologia Aeliana*. The publication should comprise a short, synthesised summary account of the archaeological remains, the finds and environmental data set within a local, regional and national context. This will be the final report on the archaeological investigation.

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APPENDIX A

CONTEXT CATALOGUE

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3000			Natural		
3001			Topsoil		
3002			Subsoil		
3003			Demolition Material		Pottery (Vessel-found in cleaning)
3004	3936		Ditch Terminus Cut	(3005)-(3007)	
3005	3936		Fill of Ditch [3004]		
3006	3936		Fill of Ditch [3004]		3006AA, Fuel, Hammerscale
3007	3936		Fill of Ditch [3004]		
3008	3935		Ditch Terminus Cut	(3009) (3039)	
3009	3935		Fill of Ditch [3008]		
3010			Stakehole Cut	(3011) (3012)	
3011			Packing Material within [3010]		3011AA
3012			Wooden Stake within [3010]		3012AA
3013	VOID	VOID	VOID	VOID	VOID
3014	VOID	VOID	VOID	VOID	VOID
3015	3936		Cut of Ditch	(3016) (3017)	
3016	3936		Primary Fill of Ditch [3015]		
3017	3936		Secondary Fill of Ditch [3015]		
3018	3179		Cut of Ring-gully	(3189)	
3019			Cut of Posthole	(3020)-(3022)	
3020			Primary Fill of [3019]		Bone, Fuel
3021			Secondary Fill of [3019]		3021AA, Fe Iron, Fuel, Hammerscale, Magnetic Matter
3022			Tertiary Fill of [3019]		2 x CBM
3023			Stakehole Cut	(3024) (3025)	
3024			Packing Material within [3023]		3024AA
3025			Wooden Stake within [3023]		3025AA
3026			Cut of Drain for Culvert	(3027)-(3029) (3038) (3069) (3070)	
3027			Primary Fill of Drain [3026]		8 x Glass, 2 x Pottery (Vessel)
3028			Secondary Fill of Culvert		
3029			Sandstone Culvert Flags		
3030	3134		Cut of Stone Pad (1st from East)	(3031) (3062)	
3031	3134		Stone Pad [3030]		
3032			Cut of Later Addition to Culvert	(3033) (3041)	
3033			Stone Fill of Later Addition to Culvert		
3034			Cut of Stones of 19th C. Farm Building	(3035)-(3037)	
3035			Stones of 19th C. Farm Building, West Wall		
3036			Addition to Farmhouse, East Part		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3037			Brick Addition to Farmhouse Building, West		
3038			Redeposited Natural Backfill of Original Culvert [3026] (3029)		
3039	3935		Secondary Fill of Ditch [3008]		
3040			Crude Floor Surface, North End of Byre 2b.		
3041			Black Silt/Clay, Polluted Fill of Culvert (3033)		
3042			Cut of Linear	(3043)	
3043			Fill of Linear [3042]		
3044	3935		Fill of Ditch [3115]		
3045	3935		Fill of Ditch [3115]		
3046	3935		Fill of Ditch [3115]		
3047			Cut of Pit	(3049)	
3048	VOID	VOID	VOID	VOID	VOID
3049			Fill of Pit [3047]		3049AA, Fuel
3050	3936		Fill of Ditch [3116]		
3051	3936		Fill of Ditch [3116]		
3052			Wall Foundation Trench Cut	(3053)-(3055)	
3053			Building Material of Wall 3054		
3054			Wall within Foundation Trench [3052]		
3055			Backfill within Foundation Trench [3052]		
3056	3935		Lowermost Fill of Ditch [3117]		
3057	3935		Backfill of Ditch [3117]		
3058	3936		Secondary Fill of Ditch [3117]		3058AA
3059	3936		Secondary Fill of Ditch [3117]		Fuel, Magnetic Matter
3060	3936		Uppermost Fill of Ditch [3117]		
3061			N-S Stone Culvert, Western Edge of Byre 2b.		
3062	3134		Packing Fill of Stone Pad [3030]		
3063	3134		Cut of Stone Pad (2nd from East)	(3064) (3065)	
3064	3134		Stone Pad [3063]		
3065	3134		Packing Fill of Stone Pad [3063]		
3066			Cut of Ditch Terminus	(3067) (3068)	
3067			Uppermost Fill of Ditch [3066]		3067AA
3068			Primary Fill of Ditch [3066]		
3069	3134		Stone Pad Overlying Culvert [3026]		
3070	3134		Packing Fill of Stone Pad [3069]		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3071	3134		Cut of Stone Pad (4th from East)	(3072) (3073)	
3072	3134		Stone Pad [3071]		
3073	3134		Packing Fill of Stone Pad [3071]		
3074	3134		Cut of Stone Pad (5th from East)	(3075) (3076)	
3075	3134		Stone Pad [3074]		
3076	3134		Packing Fill of Stone Pad [3074]		
3077	3134		Cut of Stone Pad (6th from East)	(3078) (3079)	
3078	3134		Stone Pad [3077]		
3079	3134		Packing Fill of Stone Pad [3077]		
3080	3134		Cut of Stone Pad (7th from East)	(3081) (3082)	
3081	3134		Stone Pad [3080]		
3082	3134		Packing Fill of Stone Pad [3080]		
3083	3134		Cut of Stone Pad (8th from East)	(3084) (3085)	
3084	3134		Stone Pad [3083]		
3085	3134		Packing Fill of Stone Pad [3083]		
3086	3134		Cut of Stone Pad (9th from East)	(3087) (3088)	
3087	3134		Stone Pad [3086]		
3088	3134		Packing Fill of Stone Pad [3086]		
3089	3134		Cut of Stone Pad/ Flag, Not in Allignment (1st from East)	(3090) (3091)	
3090	3134		Stone Pad [3089]		
3091	3134		Packing Fill of Stone Pad [3089]		
3092	3134		Cut of Stone Pad, Not in Allignment	(3093) (3094)	
3093	3134		Stone Pad [3092]		
3094	3134		Packing Fill of Stone Pad [3092]		
3095			Posthole Cut	(3096)	
3096			Fill of Posthole [3095]		
3097	3134		Cut of Stone Pad (10th from East)	(3098) (3099)	
3098	3134		Stone Pad [3097]		
3099	3134		Packing Fill of Stone Pad [3097]		
3100			Cut of Brick Wall (3036)	(3036) (3101)	
3101			Packing Fill of Brick Wall [3100] (3036)		
3102			Cut of Brick Wall (3037)	(3037) (3103)	
3103			Packing Fill of Brick Wall [3102] (3037)		
3104			Primary Fill of Ditch [3135]		
3105			Secondary Fill of Ditch [3135]		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3106	3940		Cut of Gully	(3107)	
3107	3940		Fill of Gully [3106]		
3108			Cut of Linear Feature	(3109)	
3109			Secondary Fill of [3108]		
3110	3935		Cut of Ditch	(3114) (3118)	
3111	3936		Cut of Ditch	(3112) (3113)	
3112	3936		Fill of Ditch [3111]		
3113	3936		Fill of Ditch [3111]		
3114	3935		Fill of Ditch [3110]		
3115	3935		Cut of Ditch	(3044)-(3046)	
3116	3936		Cut of Ditch	(3050) (3051)	
3117	3935		Cut of N-S Ditch	(3056)-(3060) [3926]	
3118	3935		Fill of Ditch [3110]		
3119	3935		Cut of Ditch	(3120)-(3122)	
3120	3935		Fill of Ditch [3119]		
3121	3935		Fill of Ditch [3119]		Bone
3122	3935		Fill of Ditch [3119]		Shale/Coal
3123	3179		Cut of Ring-gully Spur	(3124)	
3124	3179		Fill of Ring-gully Spur [3123]		3124AA, Hammerscale, Magnetic Matter
3125			Cut of Ditch	(3126)	
3126			Fill of Ditch [3125]		3126AA
3127			Cut of Ditch	(3128)	
3128			Fill of Ditch [3127]		3128AA, 5 x CBM, CBM?, Hammerscale, Magnetic Matter
3129			Cut of Gully	(3130) (3131)	
3130			Primary Fill of Gully [3129]		3130AA, 2 x Pottery
3131			Secondary Fill of Gully [3129]		3131AA
3132			Cut of Possible Ditch	(3133)	
3133			Fill of Possible Ditch [3132]		3133AA, 4 x CBM, Glass, Pottery (Vessel)
3134	*		Group No. for Stone Post-Pads	[3030] (3031) (3062) [3063] (3064) (3065) (3069) (3070) [3071] (3072) (3073) [3074] (3075) (3076) [3077] (3078) (3079) [3080] (3081) (3082) [3083] (3084) (3085) [3086] (3087) (3088) [3089] (3090) (3091) [3092] (3093) (3094) [3097] (3098) (3099)	
3135			Cut of Ditch	(3104) (3105)	
3136			Cut of Ditch, SE. Corner of Site	(3137)	
3137			Fill of Ditch (3136)		3137AA, 2 x Bone, Fuel
3138			Cut of Ditch Terminus	(3139)	
3139			Fill of Ditch [3138]		3139AA
3140	3940		Cut of Gully	(3141)	
3141	3940		Fill of Gully [3140]		
3142			Cut of Gully	(3143)	
3143			Fill of Gully [3142]		
3144			Cut of Possible Ditch	(3145)	
3145			Fill of Possible Ditch [3144]		
3146			Cut of Feature	(3147)	
3147			Fill of Feature [3146]		
3148			Cut of Ditch Terminus	(3149)	
3149			Fill of Ditch Terminus		3149AA

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			[3148]		
3150			Cut of Feature	(3151)	
3151			Fill of Feature [3151]		
3152			Cut of Feature	(3153)	
3153			Fill of Feature [3152]		3153AA
3154	3940		Cut of Terminus of Shallow Gully	(3155)	
3155	3940		Fill of Terminus of Shallow Gully [3154]		3155AA, Hammerscale, Magnetic Matter
3156	3936		Cut of Ditch Terminus	(3157)	
3157	3936		Fill of Ditch Terminus [3156]		3157AA, Fired Clay, Hammerscale, Magnetic Matter
3158	3935		Cut of Ditch	(3159)-(3161)	
3159	3935		Fill of Ditch [3158]		
3160	3935		Fill of Ditch [3158]		
3161	3935		Fill of Ditch [3158]		3161AA, Hammerscale, Magnetic Matter
3162	3936		Cut of Ditch	(3162)	
3163	3936		Fill of Ditch [3162]		3163AA, Fuel, Hammerscale
3164	3935		Fill of Possible Ditch [3170]		
3165	*		Group No. for Well	[3166] (3167) (3168) (3169)	
3166	3165		Construction Cut for Well	(3167)-(3169)	
3167	3165		Stone Lining in Well [3166]		
3168	3165		Packing Clay in Well [3166]		
3169	3165		Back/Infill of Well [3166]		
3170	3935		Cut of Possible Ditch Terminus	(3164)	
3171			Cut of Ditch in SW. Corner	(3172)	
3172			Fill of Ditch [3171]		3172AA, Fuel, Magnetic Matter
3173			Cut of Modern Posthole (?)	(3174)	
3174			Fill of Modern Posthole [3173]		
3175			Cut of Ditch Terminus	(3176)	
3176			Fill of Ditch Terminus [3175]		3176AA, Glass, Hammerscale, Magnetic Matter
3177			Cut of Ditch Terminus (Post-Med./ Mod.)	(3178)	
3178			Fill of Ditch Terminus [3177]		3178AA
3179	*		Group No. for Ring-gully SE. Corner	[3018] (3189) [3123] (3124) (3184) [3185] [3186] (3187) (3188) [3190] (3191)	
3180			Cut of Possible Ditch	(3181)	
3181			Fill of Possible Ditch [3180]		
3182			Cut of Possible Furrow	(3183)	
3183			Fill of Possible Furrow		3183AA

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			[3182]		
3184	3179		Fill of Ring-gully Segment [3185]		3184AA
3185	3179		Cut of Ring-gully Segment	(3184)	
3186	3179		Cut of Ring-gully Segment	(3187) (3188)	
3187	3179		Fill of Ring-gully Segment [3186]		3187AA
3188	3179		Fill of Ring-gully Segment [3186]		3188AA, Magnetic Matter
3189	3179		Fill of Ring-gully [3018]		3189AA, Fired Clay?, Fuel
3190	3179		Fill of Ring-gully Segment [3191]		
3191	3179		Cut of Ring-gully Segment	(3190)	3191AA, Bone, Industrial Waste, Magnetic Matter
3192	3932		Cut of Ditch	(3193)-(3196) (3198)	
3193	3932		Primary Fill of Ditch [3192]		3193AA
3194	3932		Lower Secondary of Ditch [3192]		3194AA, Fuel, Magnetic Matter
3195	3932		Upper Secondary Fill of Ditch [3192]		3195AA
3196	3932		Possible Tertiary Fill of Ditch [3192]		
3197	VOID	VOID	VOID	VOID	VOID
3198	3932		Slump Deposit within Ditch [3192]		
3199			Cut of E-W Ditch, NE. Corner of Site	(3239) (3240)	
3200	3938		Cut of NW-SE Ditch, NE. Corner of Site	(3229) (3230)	
3201			Cut of Pit (?)	(3203) (3206)	
3202			Cut of Ditch	(3204) (3205)	
3203			Secondary Fill of Pit [3201]		3203AA, Magnetic Matter
3204			Secondary Fill of Ditch [3202]		3204AA, Fuel, Hammerscale, Magnetic Matter
3205			Primary Fill of Ditch [3202]		3205AA, Hammerscale, Magnetic Matter
3206			Primary Fill of Feature [3201]		3206AA
3207	VOID	VOID	VOID	VOID	VOID
3208	VOID	VOID	VOID	VOID	VOID
3209	VOID	VOID	VOID	VOID	VOID
3210			E-W Wall, East of Byre 2a.		
3211			NW-SE Culvert, East of Byre 2a.		
3212			NE-SW Drain(?)/Culvert, East of Byre 2a.		
3213			N-S Wall, East of Byre 2a.		
3214			E-W Wall, East of Byre 2a.		
3215			N-S Wall, North of Byre 1c.		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3216			Rectangular Structure, Part of Byre 3?		
3217			N-S Drain with Slab Base, Part of Byre 1c.		
3218			E-W Curving Red Brick Culvert, West of Byre 1c.		
3219			Cut of Gully	(3220) (3221)	
3220			Fill of Gully [3219]		
3221			Fill of Gully [3219]		3221AA, Fe Iron, Hammerscale, Magnetic Matter
3222	VOID	VOID	VOID	VOID	VOID
3223	VOID	VOID	VOID	VOID	VOID
3224	VOID	VOID	VOID	VOID	VOID
3225	VOID	VOID	VOID	VOID	VOID
3226	VOID	VOID	VOID	VOID	VOID
3227	VOID	VOID	VOID	VOID	VOID
3228	VOID	VOID	VOID	VOID	VOID
3229	3938		Secondary Fill of Ditch [3200]		3229AA, Fuel
3230	3938		Primary Fill of Ditch [3200]		3230AA
3231			Cut of Ditch	(3232)-(3235)	
3232			Primary Fill of Ditch [3231]		3232AA
3233			Light Grey/Blue Colluvial Fill of Ditch [3231]		3233AA
3234			Secondary Fill of Ditch [3231]		3234AA
3235			Tertiary Fill of Ditch [3231]		
3236	3938		Cut of Ditch	(3237) (3238)	
3237	3938		Primary Fill of Ditch [3236]		3237AA
3238	3938		Secondary Fill of Ditch [3236]		
3239			Primary Fill of Ditch [3199]		3239AA, Bone, Fuel, Hammerscale, Magnetic Matter
3240			Secondary Fill of Ditch [3199]		3240AA
3241			Cut of Feature	(3242)	
3242			Fill of Feature [3241]		
3243	VOID	VOID	VOID	VOID	VOID
3244	VOID	VOID	VOID	VOID	VOID
3245	3940		Cut of Gully	(3246)	
3246	3940		Fill of Gully [3245]		3246AA, Fuel, Hammerscale, Magnetic Matter
3247	3940		Cut of Narrow E-W Gully	(3248)	
3248	3940		Fill of Gully [3247]		3248AA, Fuel, Hammerscale, Magnetic Matter
3249	3940		Cut of E-W Gully	(3250)	
3250	3940		Fill of Gully [3249]		3250AA, Fuel
3251			Cut of Feature	(3264) (3269)	
3252	3940		Cut of Narrow E-W Gully	(3253)	

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3253	3940		Fill of Gully [3252]		3253AA, Fuel
3254	3940		Cut of Narrow E-W Gully	(3255)	
3255	3940		Fill of Gully [3254]		3255AA, CBM, Hammerscale, Magnetic Matter
3256	3940		Cut of Narrow E-W Gully	(3257)	
3257	3940		Fill of Gully [3256]		3257AA
3258	3940		Cut of E-W Gully	(3259)	
3259	3940		Fill of Gully [3258]		3259AA
3260	VOID	VOID	VOID	VOID	VOID
3261			Horse Gin Track	(3262)	
3262			Backfill within Horse Gin Track [3261]		
3263	*		Central Structure within Horse Gin (Not Excavated)		
3264			Fill of Feature [3251]		3264AA
3265			Cut of Possible Posthole near Gully	(3266)	
3266			Fill of Possible Posthole [3265]		3266AA, 2 x CBM, Fuel, Hammerscale, Magnetic Matter
3267			Cut of Possible Posthole near Gully	(3268)	
3268			Fill of Possible Posthole [3267]		3268AA, Fuel, Hammerscale, Magnetic Matter
3269			Fill of Feature [3251]		
3270			Cut of Posthole	(3271) (3277)	
3271			Fill around Post/Stake in [3270]		3271AA
3272	3938		Cut of NW-SE Ditch	(3273) (3274)	
3273	3938		Primary Fill of Ditch [3272]		3273AA, Fuel
3274	3938		Secondary Fill of Ditch [3272]		3274AA, Magnetic Matter
3275			Cut of N-S Gully	(3276)	
3276			Fill of Gully [3275]		3276AA
3277			Wooden Post/Stake in [3270]		3277AA
3278			Cut of Ditch	(3287) (3288)	
3279			Cut of Ditch	(3289)	
3280			Cut of Possible Gully	(3291)	
3281			Cut of Gully	(3282)	
3282			Fill of Gully [3281]		3282AA
3283			Cut of Feature	(3284)	
3284			Fill of Feature [3283]		3284AA
3285			Cut of Enclosure Ditch, North Extent	(3307)	
3286			Cut of Modern Linear	(3290)	
3287			Primary Fill of Ditch [3278]		3287AA
3288			Secondary Fill of Ditch [3278]		
3289			Primary Fill of Ditch [3279]		3289AA
3290			Fill of Modern Linear [3286]		
3291			Fill of Possible Gully		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			[3280]		
3292			Post-Med. Farmhouse Road		
3293			Cut of Posthole	(3294)-(3296)	
3294			Fill of Posthole [3293]		3294AA
3295			Organic Fill of Posthole [3293]		3295AA
3296			Wooden Stake in Posthole [3293]		3296AA
3297			N-S Eastern Wall of Byre 2a.		
3298			E-W Culvert in SW. Corner of Site		
3299			L-Shaped Wall SW. of Farmhouse		
3300			S. Wall of Foldyard 1		
3301			N-S Wall		
3302			E-W Wall North of Byre 1b		
3303			Cut of Linear Feature	(3304)	
3304			Fill of Linear Feature [3303]		3304AA
3305			Cut of Possible Posthole	(3306)	
3306			Fill of Possible Posthole [3305]		3306AA
3307			Fill of Ditch [3285]		3307AA
3308	VOID	VOID	VOID	VOID	VOID
3309	3938		Cut of Ditch	(3310) (3311)	
3310	3938		Primary Fill of Ditch [3309]		3310AA, Hammerscale
3311	3938		Secondary Fill of Ditch [3309]		3311AA
3312	3939		Cut of Gully	(3313)	
3313	3939		Fill of Gully [3312]		3313AA
3314	3939		Cut of Gully	(3315)	
3315	3939		Fill of Gully [3314]		3315AA
3316			Cut of Stakehole	(3317)	
3317			Fill of Stakehole [3316]		
3318			Cut of Posthole	(3319)	
3319			Fill of Posthole [3318]		3319AA
3320			Cut of Gully	(3321)	
3321			Fill of Gully [3320]		3321AA
3322			Cut of Feature	(3323)	
3323			Fill of Feature [3322]		3323AA
3324	3939		Cut of Gully	(3325)	
3325	3939		Fill of Gully [3324]		3325AA, Hammerscale, Magnetic Matter
3326	3939		Cut of Curvilinear Field Boundary	(3327)	
3327	3939		Fill of Field Boundary [3326]		3327AA
3328			Cut of Feature	(3329)	
3329			Fill of Feature [3328]		3329AA
3330	3939		Cut of Curvilinear Field Boundary	(3331) (3332)	
3331	3939		Dark Grey/Brown Fill of Field Boundary [3330]		3331AA

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3332	3939		Red/Brown Sandy Clay Fill of Field Boundary [3330]		3332A
3333			Cut of Source Pit	(3348)-(3351)	
3334			Cut of Possible Feature	(3335)	
3335			Mixed Fill of Feature [3334]		
3336			Cut of Animal (Sheep?) Burial	(3337)	
3337			Fill of Animal Burial [3336]		3337AA, 3 x Bone, 4 x Stone (fire cracked)
3338			Cut of Gully	(3339)	
3339			Fill of Gully [3338]		
3340			Cut of Possible Posthole	(3341)	
3341			Fill of Possible Posthole [3340]		3341AA
3342	3940		Cut of E-W Gully	(3343)	
3343	3940		Fill of Gully [3342]		3343AA
3344			Cut of Possible Posthole	(3345)	
3345			Fill of Possible Posthole [3344]		
3346			Cut of Animal (Horse?) Burial	(3347) (3389)	
3347			Fill of Animal Burial [3346]		3347AA, 4 x Bone, Fuel, Magnetic Matter, 2 x Pottery (Vessel)
3348			Primary Alluvial/Weathering Fill of Source Pit [3333]		
3349			Initial Humic Backfill Deposit of Source Pit [3333]		3349AA
3350			Secondary Allvial/Slumping Fill of Source Pit [3333]		
3351			Later Backfill Deposit of Source Pit [3333]		
3352			Cut of Possible Posthole	(3353)	
3353			Fill of Possible Posthole [3352]		3353AA
3354	3940		Cut of E-W Gully	(3355)	
3355	3940		Fill of Gully [3354]		
3356			Cut of Tree Bowl	(3357)	
3357			Fill of Tree Bowl [3356]		
3358			Cut of Burial	(3376)-(3378)	
3359			Cut of Furrow Terminus	(3360)	
3360			Fill of Furrow [3359]		3360AA, Hammerscale, Magnetic Matter
3361			Cut of Gully	(3362)	
3362			Fill of Gully [3361]		3362AA
3363	3935		Cut of Ditch	(3364) (3365)	
3364	3935		Top Fill of Ditch [3363]		3364AA
3365	3935		Bottom Fill of Ditch		3365AA

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			[3363]		
3366			Cut of furrow	(3367)	
3367			Fill of [3366]		
3368	3935		Cut of Ditch	(3369) (3374)	
3369	3935		Fill of [3368]		3369AA
3370	3934		Cut of Ditch Terminus	(3371) (3384)	
3371	3934		Secondary Fill of Ditch Terminus [3370]		3371AA, Fuel, Industrial Waste, Magnetic Matter
3372			Cut of Possible Pit	(3373) (3375)	
3373			Secondary Fill of Pit [3372]		3373AA
3374	3935		Fill of Ditch [3368]		3374AA-AB, Fuel, Industrial Waste, Magnetic Matter
3375			Primary Fill of Pit [3372]		
3376			Primary Fill of Burial [3358]		
3377			Backfill Deposit of Burial [3358]		3377AA
3378			Animal Skeleton within [3358]		2 x Bone
3379			Fill of Small Pit/Posthole [3380]		3379AA
3380			Cut of Small Pit/Posthole	(3379)	
3381	3934		Cut of Linear Ditch	(3382) (3383) (3391) (3392) (3397)	
3382	3934		Upper Fill of Ditch [3381]		3382AA
3383	3934		Lower Fill of Ditch [3381]		3383AA
3384	3934		Primary Fill of Ditch Terminus [3370]		3384AA
3385	3913		Cut of Ring-gully Terminus	(3386) (3390)	
3386	3913		Fill of Ring-gully Terminus [3385]		3386AA-AE, Bone, 4 x Stone (fire cracked), Magnetic Matter
3387			Cut of Furrow	(3388)	
3388			Fill of Furrow [3387]		3388AA
3389			Skeleton of Horse within [3346]		10 x Bone
3390	3913		Probable Primary Fill of [3385]		
3391	3934		Fill of Ditch [3381]		
3392	3934		Fill of Ditch [3381]		
3393			Cut of Possible Stakehole	(3394)	
3394			Fill of Possible Stakehole [3393]		
3395	3933		Cut of Large E-W Ditch	(3396) (3419)-(3421) (3482)	
3396	3933		Upper Fill of Ditch [3395]		
3397	3934		Fill of Ditch [3381]		
3398			Cut of Possible Stakehole	(3399)	
3399			Fill of Possible Stakehole [3398]		
3400			Cut of Possible	(3401) (3402)	

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			Cremation Burial		
3401			Fill of Possible Cremation Burial [3400]		
3402			Fill of Possible Cremation Burial [3400]		3402AA
3403	3935		Cut of Ditch	(3404) (3406)	
3404	3935		Fill of Ditch [3403]		
3405	VOID	VOID	VOID	VOID	VOID
3406	3935		Fill of Ditch [3403]		
3407			Cut of Furrow	(3408)	
3408			Fill of Furrow [3407]		
3409	3485		Cut of Ring-gully	(3410)	
3410	3485		Fill of Ring-gully [3409]		
3411	3912		Cut of Roundhouse Terminus	(3412)	
3412	3912		Fill of Roundhouse Terminus [3411]		3412AA-AE, Fired Clay, Fuel, Industrial Waste, Magnetic Matter
3413	3487		Cut of Ring-gully	(3415) (3418) (3530)	
3414	3913		Fill of Ring-gully [3529]		3414AA, 5 x Stone (fire cracked), Industrial Waste, Magnetic Matter
3415	3487		Secondary Fill of Ring-gully [3413]		3415AA
3416	3912		Cut of Roundhouse Gully	(3417)	
3417	3912		Fill of Roundhouse Gully [3416]		3417AA
3418	3487		Primary Fill of Ring-gully [3413]		3418AA, 7 x Stone (fire cracked), Fuel, Industrial Waste, Magnetic Matter
3419	3933		Primary Fill of Ditch [3395]		3419AA
3420	3933		Middle Fill of Ditch [3395]		
3421	3933		Silt Layer/Band within Ditch [3395]		
3422	3487		Cut of Roundhouse Gully	(3423)	
3423	3487		Fill of Roundhouse Gully [3422]		3423AA, Magnetic Matter
3424	3484		Cut of Ring-gully Terminus	(3425)	
3425	3484		Fill of Ring-gully Terminus [3424]		3425AA, Bone, Fuel, Magnetic Matter
3426	3935		Cut of Ditch	(3438) (3439)	
3427	3934		Cut of Ditch	(3440) (3441)	
3428	3912		Cut of Ring-gully	(3429)	
3429	3912		Fill of Ring-gully [3428]		
3430	3913		Cut of Ring-gully	(3431)	
3431	3913		Fill of Ring-gully [3430]		2 x Stone (fire cracked)
3432			Cut of Probable Water Channel	(3433)	
3433			Fill of Probable Water		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			Channel [3433]		
3434	3912		Recut of Roundhouse Gully [3422]	(3435)	
3435	3912		Fill of Recut of Roundhouse Gully [3434]		
3436			Cut of Feature	(3437)	
3437			Fill of Feature [3436]		
3438	3935		Primary Fill of Ditch [3426]		3438AA
3439	3935		Secondary Fill of Ditch [3426]		3439AA, Fired Clay, Fuel, Hammerscale, Magnetic Matter
3440	3934		Primary Fill of Ditch [3427]		3440AA, Fuel
3441	3934		Secondary Fill of Ditch [3427]		3441AA
3442			Cut of Linear Feature	(3443)	
3443			Fill of Linear Feature [3442]		
3444	3934		Cut of Ditch	(3445)-(3447)	
3445	3935		Top Fill of Ditch [3449]		
3446	3934		Redeposited Natural Fill of Ditch [3444]		
3447	3934		Primary Fill of Ditch [3444]		3447AA, Fuel
3448	3935		Secondary Fill of Ditch [3449]		3448AA
3449	3935		Cut of Ditch	(3448) (3450)	
3450	3935		Primary Fill of Ditch [3449]		3450AA, Magnetic Matter
3451	VOID	VOID	VOID	VOID	VOID
3452			Cut of Possible Posthole	(3453)	
3453			Fill of Possible Posthole [3452]		
3454	VOID	VOID	VOID	VOID	VOID
3455	VOID	VOID	VOID	VOID	VOID
3456			Cut of Possible Linear	(3457)	
3457			Fill of Possible Linear [3456]		
3458	VOID	VOID	VOID	VOID	VOID
3459	VOID	VOID	VOID	VOID	VOID
3460	3912		Cut of Roundhouse Gully, Slot North of [3422]	(3461)	
3461	3912		Fill of Roundhouse Gully [3460]		3461AA, Hammerscale, Industrial Waste, Magnetic Matter
3462	3528		Cut of Int. Posthole	(3517)	
3463	3487		Cut of SE-NW Ring-gully	(3464)	
3464	3487		Fill of Ring-gully [3463]		
3465	3935		Cut of SW-NE Linear	(3466) (3508)	
3466	3935		Fill of Linear [3465]		
3467	3528		Cut of Posthole	(3518)	
3468	3933		Cut of Ditch	(3469)-(3472)	
3469	3933		Fill of Ditch [3468]		3469AA

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3470	3933		Fill of Ditch [3468]		3470AA, 3 x CBM
3471	3933		Fill of Ditch [3468]		3471AA, Glass (Bottle)
3472	3933		Fill of Ditch [3468]		3472AA
3473			Cut of Posthole	(3474)	
3474			Fill of Posthole [3473]		3474AA
3475	3528		Cut of Posthole	(3492)	
3476	3485		Cut of Roundhouse Gully Terminus	(3519)	
3477			Cut of Curvilinear Feature	(3505)	
3478			Cut of Shallow Posthole	(3483)	
3479	3528		Cut of Posthole	(3506)	
3480	3484		Cut of Roundhouse Gully	(3481)	
3481	3484		Fill of Roundhouse Gully [3480]		3481AA, Bone, Magnetic Matter
3482	3933		Fill of Ditch [3395]		
3483			Fill of Posthole [3478]		
3484	*		Group No. for Ring-gully	[3424] (3425) [3480] (3481) [3503] (3516) [3511] (3512) [3522] (3523) [3526] (3527) [3569] (3570)	
3485	*		Group No. for Ring-gully	[3409] (3410) [3476] (3519) [3509] (3510) [3538] (3539) [3560] (3561) [3563] (3564)	
3486	*		Group No. for Ring-gully, same as 3607	[3489] (3490) [3495] (3496) [3501] (3502) [3514] (3515) [3520] (3521) [3532] (3533) [3534] (3535) [3540] (3541) [3542] (3546) [3553] (3554) [3567] (3568) [3582] (3583) [3586] (3587) [3592] (3593)	
3487	*		Group No. for Ring-gully	[3413] (3415) (3418) (3530) [3422] (3423) [3463] (3464) [3497] (3498) [3584] (3585)	
3488	*		Group No. for Ring-gully	[3557] (3558) (3559) [3571] (3572) [3573] (3574) (3581) [3575] (3576)	
3489	3486		Cut of Ring-gully Terminus	(3490)	
3490	3486		Fill of Ring-gully [3489]		3490AA-AC, Fuel, Magnetic Matter, Hammerscale
3491			Cut of possible fire-pit/refuse pit	(3507) (3562)	
3492	3528		Fill of Posthole [3475]		
3493	3606		Cut of Ring-gully	(3494)	
3494	3606		Fill of Ring-gully [3493]		
3495	3486		Cut of Ring-gully	(3496)	
3496	3486		Fill of Ring-gully [3495]		
3497	3487		Cut of Ring-gully	(3498)	
3498	3487		Fill of Ring-gully [3497]		
3499	3913		Cut of Ring-gully	(3500)	
3500	3913		Fill of Ring-gully [3499]		3500AA
3501	3486		Cut of Ring-gully	(3502)	
3502	3486		Fill of Ring-gully [3501]		3502AA, Fuel, Magnetic Matter
3503	3484		Cut of Ring-gully	(3516)	
3504	VOID	VOID	VOID	VOID	VOID

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3505			Fill of Curvilinear Feature [3477]		
3506	3528		Fill of Posthole [3479]		
3507			Fill of Pit [3491]		3507AA, Bone, Hammerscale, Magnetic Matter
3508	3935		Secondary Redepsoited Natural Fill of Linear [3465]		
3509	3485		Cut of Ring-gully	(3510)	
3510	3485		Fill of Ring-gully [3509]		3510AA, Magnetic Matter
3511	3484		Cut of Ring-gully	(3512)	
3512	3484		Fill of Ring-gully [3511]		
3513	3933		Cut of Enclosure Ditch Terminus	(3545) (3743)-(3745)	
3514	3486		Cut of Ring-gully	(3515)	
3515	3486		Fill of Ring-gully [3514]		3515AA, Magnetic Matter
3516	3484		Second Fill of Ring-gully [3503]		
3517	3528		Fill of Posthole [3462]		
3518	3528		Fill of Posthole [3467]		
3519	3485		Fill of Ring-gully [3476]		
3520	3486		Cut of Ring-gully Terminus	(3521)	
3521	3486		Fill of Ring-gully [3520]		3521AA-AE, 2 x Bone, Fuel, Industrial Waste, Magnetic Matter
3522	3484		Cut of Ring-gully	(3522)	
3523	3484		Fill of Ring-gully [3522]		
3524	3606		Cut of Ring-gully	(3525)	
3525	3606		Fill of Ring-gully [3524]		3525AA, Hammerscale, Industrial Waste, Magnetic Matter
3526	3484		Cut of Ring-gully	(3527)	
3527	3484		Fill of Ring-gully [3526]		3527AA, Fuel, Magnetic Matter
3528	*		Group No. for Posthole Grouping near Ring-gully 3486	[3462] (3517) [3467] (3518) [3475] (3492) [3479] (3506)	
3529	3913		Recut of Ring-gully	(3531)	
3530	3487		Third Fill of Ring-gully [3413]		
3531	3913		Primary Fill of Recut of Ring-gully [3529]		
3532	3486		Cut of Ring-gully	(3533)	
3533	3486		Fill of Ring-gully [3532]		3533AA, Magnetic Matter
3534	3486		Cut of Posthole	(3535)	
3535	3486		Fill of Posthole [3534]		3535AA, 2 x Bone, Fuel
3536			Cut of Stakehole	(3537)	
3537			Fill of Stakehole [3536]		
3538	3485		Cut of Ring-gully	(3539)	
3539	3485		Fill of Ring-gully		3539AA, Fuel

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			[3538]		
3540	3486		Cut of Ring-gully	(3541)	
3541	3486		Fill of Ring-gully [3540]		3541AA, Fuel, Industrial Waste, Magnetic Matter
3542	3486		Cut of Ring-gully	(3546)	
3543	3606		Cut of Terminus of Ring-gully	(3547) (3548)	
3544			Cut of Furrow	(3550)	
3545	3933		Fill of Ditch Terminus [3513]		
3546	3486		Fill of Ring-gully [3542]		
3547	3606		Basal Fill of Ring-gully [3543]		
3548	3606		Secondary Fill of Ring-gully [3543]		
3549	VOID	VOID	VOID	VOID	VOID
3550			Fill of Furrow[3544]		
3551			Cut of Posthole	(3552)	
3552			Fill of Posthole [3551]		
3553	3486		Cut of Ring-gully	(3554)	
3554	3486		Fill of Ring-gully [3553]		
3555	3606		Cut of Ring-gully Terminus	(3556)	
3556	3606		Fill of Ring-gully [3555]		3556AA, Fuel, Industrial Waste, Magnetic Matter
3557	3488		Cut of Ring-gully	(3558) (3559)	
3558	3488		Second Fill of Ring-gully [3557]		3558AA, Magnetic Matter
3559	3488		Primary Fill of Ring-gully [3557]		3559AA
3560	3485		Cut of Ring-gully	(3561)	
3561	3485		Fill of Ring-gully [3560]		3561AA, Bone
3562			Basal fill pit [3491]		
3563	3485		Cut of Ring-gully	(3564)	
3564	3485		Fill of Ring-gully [3563]		3564AA, Bone
3565			Cut of Posthole/Pit	(3566)	
3566			Fill of Posthole/Pit [3565]		3566AA
3567	3486		Cut of Ring-gully	(3568)	
3568	3486		Fill of Ring-gully [3567]		
3569	3484		Cut of Ring-gully	(3570)	
3570	3484		Fill of Ring-gully [3569]		3570AA
3571	3488		Cut of Ring-gully	(3572)	
3572	3488		Fill of Ring-gully [3571]		3572AA, Hammerscale, Indsutrial Waste, magnetic matter
3573	3488		Cut of Ring-gully Terminus	(3574) (3581)	
3574	3488		Second Fill of Ring-gully [3573]		3574AA-AC
3575	3488		Cut of Gully	(3576)	
3576	3488		Fill of Gully [3575]		3576AA

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3577	3933		Cut of Ditch	(3578) (3643) (3644)	
3578	3933		Fill of Ditch [3577]		3578AA, Bone, Hammerscale, Magnetic Matter
3579	3608		Cut of Ditch Terminus	(3580) (3914)	
3580	3608		Fill of Ditch Terminus [3579]		3580AA-AB
3581	3488		Primary Fill of [3573]		3581AA
3582	3486		Cut of Ring-gully Terminus	(3583)	
3583	3486		Fill of Ring-gully [3582]		3583AA
3584	3487		Cut of Ring-gully	(3585)	
3585	3487		Fill of Ring-gully [3584]		3585AA, Magnetic Matter
3586	3486		Cut of Ring-gully	(3587)	
3587	3486		Fill of Ring-gully [3586]		
3588	3606		Cut of Ring-gully	(3589)	
3589	3606		Fill of Ring-gully [3588]		3589AA, Magnetic Matter
3590	3608		Cut of Gully	(3591)	
3591	3608		Fill of Gully [3590]		3591AA, Bone, Hammerscale, Magnetic Matter
3592	3486		Cut of Ring-gully	(3593)	
3593	3486		Fill of Ring-gully [3592]		3593AA, Fuel, Hammerscale, Industrial Waste, Magnetic Matter, 24 x Stone (fire cracked), RF001, RF002
3594	3606		Cut of Ring-gully	(3496) (3497)	
3595			Cut of Possible Linear Feature	(3612)	
3596	3606		Primary Fill of Ring-gully [3594]		3596AA
3597	3606		Secondary Fill of Ring-gully [3594]		3597AA
3598			Cut of Furrow	(3599)	
3599			Fill of Furrow [3598]		
3600	3608		Cut of Gully	(3601)	
3601	3608		Fill of Gully [3600]		3601AA, Fuel, Magnetic Matter
3602	3609		Cut of Ring-gully	(3603)	
3603	3609		Fill of Ring-gully [3602]		3603AA
3604	3608		Cut of Curvilinear Gully/Ditch	(3605)	
3605	3608		Fill of Curvilinear Gully/Ditch [3604]		
3606	*		Group No. for Ring-gully	[3493] (3494) [3524] (3525) [3543] (3547) (3548) [3555] (3556) [3588] (3589) [3594] (3596) (3597)	
3607	*		Group No. for Ring-gully, same as 3486	See 3486	
3608	*		Group No. for Ring-gully	[3579] (3580) (3914) [3590] (3591) [3600] (3601) [3604] (3605)	
3609	*		Group No. for Large Ring-gully	[3602] (3603) [3670] (3671) [3699] (3700) [3713] (3714) [3737] (3764) (3738) [3766] (3767) [3774] (3807) [3792] (3793) (3811) [3796] (3797)	

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
				(3798) [3821] (3822) (3823) [3844] (3843) (3845)	
3610			Cut of Posthole	(3611)	
3611			Fill of Posthole [3610]		3611AA Fuel, Magnetic Matter
3612			Fill of Possible Linear Feature [3595]		
3613	VOID	VOID	VOID	VOID	VOID
3614			Cut of E-W Furrow	(3615) (3616)	
3615			Upper Fill of Furrow [3614]		
3616			Lower Fill of Furrow [3614]		
3617	3936		Cut of Ditch	(3636)-(3639)	
3618			Cut of Furrow	(3619)	
3619			Fill of Furrow [3618]		CBM
3620	3933		Cut of Ditch	(3621) (3652) (3653)	
3621	3933		Fill of Ditch [3620]		
3622	VOID	VOID	VOID	VOID	VOID
3623	3933		Cut of Enclosure Ditch	(3624)-(3630) (3632)	
3624	3933		Fill of Ditch [3623]		3624AA, Bone
3625	3933		Silty Clay Fill of Ditch [3623]		Bone
3626	3933		Fill of Ditch [3623]		
3627	3933		Fill of Ditch [3623]		
3628	3933		Silty Clay Fill of Ditch [3623]		3 x Stone (fire cracked)
3629	3933		Fill of Ditch [3623]		
3630	3933		Deposit of Possibly Med. Material within [3623]		
3631	VOID	VOID	VOID	VOID	VOID
3632	3933		Colluvial Wash Deposit within Ditch [3623]		
3633	VOID	VOID	VOID	VOID	VOID
3634	VOID	VOID	VOID	VOID	VOID
3635	3933		Cut of Enclosure Ditch	(3656)-(3658) (3915) (3916)	
3636	3936		Primary Fill of Ditch [3617]		3636AA, Fuel, Magnetic Matter
3637	3936		Secondary Fill of Ditch [3617]		
3638	3936		Fill of Ditch [3617]		
3639	3936		Uppermost Fill of Ditch [3617]		
3640	3933		Cut of Enclosure Ditch	(3641) (3642) (3918)	
3641	3933		Primary Fill of Ditch [3640]		3641AA
3642	3933		Secondary Fill of Ditch [3640]		3642AA
3643	3933		Fill of Ditch [3577]		3643AA, Bone
3644	3933		Primary Fill of [3577]		3644AA
3645	3934		Cut of Ditch	(3646) (3647)	
3646	3934		Primary Fill of Ditch [3645]		
3647	3934		Secondary Fill of Ditch [3645]		3647AA
3648	3935		Cut of Enclosure	(3649)-(3651)	

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			Ditch		
3649	3935		Lowermost Fill of Ditch [3648]		
3650	3935		Fill of Ditch [3648]		
3651	3935		Upper Fill of Ditch [3648]		
3652	3933		Sandy Redeposited Natural within [3620]		
3653	3933		Clay Redeposited Natural within [3620]		
3654	3933		Cut of Enclosure Ditch	(3655) (3673) (3725) (3726)	
3655	3933		Fill of Ditch [3654]		3655AA
3656	3933		Primary Fill of [3635]		3656AA, Fuel, Stone (fire cracked)
3657	3933		Secondary Fill of [3635]		3657AA
3658	3933		Tertiary Fill of [3635]		
3659	3934		Cut of Ditch Terminus	(3660)	
3660	3934		Fill of Ditch [3659]		Bone, Fired Clay
3661	3936		Cut of Ditch	(3662)-(3664) (3921)	
3662	3936		Primary Fill of Ditch [3661]		3662AA
3663	3936		Mid. Fill of Ditch [3661]		
3664	3936		Mid. Fill of Ditch [3661]		
3665	VOID	VOID	VOID	VOID	VOID
3666	VOID	VOID	VOID	VOID	VOID
3667			Cut of Gully/Ditch	(3668)	
3668			Fill of Gully/Ditch [3667]		
3669	3933		Cut of Ditch, E. Extent of Enclsoure Ditch	(3686)-(3694)	
3670	3609		Cut of Ring-gully	(3671)	
3671	3609		Fill of Ring-gully[3670]		3671AA, Fuel, 5 x Stone (fire cracked), Magnetic Matter
3672			Fill of Furrow [3917]		
3673	3933		Orange Clay Lower Fill of Ditch [3654]		
3674	VOID	VOID	VOID	VOID	VOID
3675	3936		Cut of Ditch	(3676)	
3676	3936		Fill of Ditch [3675]		3676AA
3677	3937		Cut of Linear	(3678) (3781)	
3678	3937		Fill of Linear [3677]		3678AA, Hammerscale, Magnetic Matter
3679			Cut of Furrow	(3680)	
3680			Fill of Furrow [3679]		
3681			Cut of Buried Barrel	(3695)-(3697)	
3682			Cut of internal partition for 3609	(3683)	
3683			Fill of [3682]		3683AA, Fuel, Magnetic Matter
3684			Cut of Post-Med. Pit	(3685) (3698)	
3685			Fill of Post-Med. Pit [3684]		
3686	3933		Uppermost Fill of Ditch [3669]		
3687	3933		Fill of Ditch [3669]		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3688	3933		Upper Colluvial Silt Fill of Ditch [3669]		
3689	3933		Silty Charcoal Lens within Ditch [3669]		
3690	3933		Lower Colluvial Silt Fill of Ditch [3669]		
3691	3933		Clay Fill of Ditch [3669]		3691AA
3692	3933		Colluvial Fill of Ditch [3669]		
3693	3933		Colluvial Clay Wash on W. Extent of Ditch [3669]		
3694	3933		Colluvial Clay Wash on E. Extent of Ditch [3669]		
3695			Remains of Wooden Barrel	[3681] (3696) (3697)	12 x Fe Iron
3696			Primary Fill of Wooden Barrel (3695)	[3681]	6 x CBM, 5 x Glass, 15 x Glass (Bottle), 69 x Pottery (Vessel)
3697			Secondary Fill of Wooden Barrel (3695)	[3681]	3 x Pottery (Vessel)
3698			Fill of Pit [3684]		
3699	3609		Cut of Ring-gully	(3700)	
3700	3609		Fill of Ring-gully [3699]		3700AA, Industrial Waste, Magnetic Matter
3701			Fill of Pipe Trench [3702]		
3702			Cut of Pipe Trench	(3701)	
3703	3936		Cut of Ditch	(3729) (3748)-(3750)	
3704	VOID	VOID	VOID	VOID	VOID
3705	3936		Cut of Ditch Terminus	(3706) (3727) (3728)	
3706	3936		Third Fill of Ditch [3705]		3706AA
3707			Cut of Posthole	(3708)	
3708			Fill of Posthole [3707]		
3709			Cut of Ditch	(3710) (3924)	
3710			Fill of Ditch [3709]		Pottery (Handmade)
3711	3936		Cut of Large Ditch	(3712) (3922) (3923)	
3712	3936		Fill of Large Ditch [3711]		
3713	3609		Cut of Ring-gully	(3714)	
3714	3609		Fill of Ring-gully [3713]		
3715	VOID	VOID	VOID	VOID	VOID
3716	VOID	VOID	VOID	VOID	VOID
3717			Cut of Ditch	(3718)	
3718			Fill of Ditch [3717]		
3719			Cut of Sunken Post-Med. Barrel	(3739)-(3742) (3927)	
3720	3937		Cut of Ditch	(3721) (3722)	
3721	3937		Primary Fill of Ditch [3720]		3721AA, Fuel
3722	3937		Secondary Fill of Ditch [3720]		3722AA, Fuel, Hammerscale, Magnetic Matter
3723	3937		Cut of Ditch	(3724) (3752)	
3724	3937		Fill of Ditch [3723]		3724AA
3725	3933		Fill of Ditch [3654]		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3726	3933		Lower Fill of Ditch [3654]		
3727	3936		Primary Fill of Ditch [3705]		3727AA
3728	3936		Second Fill of Ditch [3705]		3728AA, 2 x Stone (fire cracked)
3729	3936		Bottom Fill of Ditch [3703]		3729AA
3730			Cut of Possible Pit	(3731)	
3731			Fill of Possible Pit [3730]		
3732			Cut of Linear	(3733)	
3733			Fill of Linear [3732]		3733AA
3734	3937		Cut of NE-SW Gully	(3735) (3736)	
3735	3937		Primary Fill of Gully [3734]		3735AA
3736	3937		Secondary Fill of Gully [3734]		3736AA
3737	3609		Cut of Ring-gully Terminus	(3738) (3764)	
3738	3609		Second Fill of Ring-gully [3737]		3738AA-AC, 3 x Bone, Fuel, Industrial Waste, Magnetic Matter
3739			Basal Fill of Sunken Barrel [3719]		
3740			Fill of Sunken Barrel [3719]		
3741			High Pottery Waste Content Dump with Barrel [3719]		3 x Bone, 29 x CBM, 3 x CBM (Brick), CBM+Fe (Brick), Fired Clay?, 6 x Glass, Glass (Bottle), 309 x Pottery (Vessel), 2 x Pottery? (Vessel), Stone (fire cracked)
3742			Tumble/Rubble Upper Deposit of Sunken Barrel [3719]		
3743	3933		Fill of Ditch [3513]		
3744	3933		Fill of Ditch [3513]		
3745	3933		Fill of Ditch [3513]		
3746			Cut of Ditch	(3747)	
3747			Fill of Ditch [3746]		8 x CBM, Glass, Pottery
3748	3936		Second Fill of Ditch [3703]		3748AA
3749	3936		Third Fill of Ditch [3703]		
3750	3936		Top Fill of Ditch [3703]		
3751	VOID	VOID	VOID	VOID	VOID
3752	3937		Lower Fill of Ditch [3723]		3752AA
3753			Cut of Possible Posthole	(3754)	
3754			Fill of Possible Posthole [3753]		
3755			Cut of E-W Furrow	(3756)	
3756			Fill of Furrow [3755]		
3757			Cut of Posthole	(3758) (3759)	
3758			Bedding Material		3758AA

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
			within Posthole [3757]		
3759			Charcoal Rich Upper Fill of Posthole [3757]		3759AA, Bone, Hammerscale
3760			Modern Machine Mark (Cut)	(3761)	
3761			Fill of Modern Machine Mark [3760]		Fuel, Hammerscale, Magnetic Matter
3762			Cut of Possible Cremation	(3763)	
3763			Fill of [3762]		3763AA-AB, 6 x Bone, Magnetic Matter
3764	3609		Primary Fill of [3737]		3764AA, Bone, Industrial Waste, Magnetic Matter
3765	3936		Cut of Curvilinear Enclosure Ditch	(3801)-(3804)	
3766	3609		Cut of Ring-gully	(3767)	
3767	3609		Fill of Ring-gully [3766]		
3768	3936		Cut of Large Ditch	(3769) (3779) (3780) (3925)	
3769	3936		Fill of Large Ditch [3768]		3769AA
3770			Cut of Stakehole	(3771)	
3771			Fill of Stakehole [3770]		3771AA
3772			Cut of Posthole Outside Ring-gully 3609	(3773) (3799) (3800) (3919) (3920)	
3773			Fill of Posthole [3772]		3773AA, Bone, Magnetic Matter
3774	3609		Cut of Roundhouse Gully	(3807)	
3775			Cut of Linear within 3609	(3776)	
3776			Fill of Linear [3775]		3776AA, Hammerscale, Magnetic Matter
3777			Cut of Ditch	(3778)	
3778			Fill of Ditch [3777]		
3779	3936		Mid. Fill of Ditch [3768]		
3780	3936		Upper Fill of Ditch [3768]		
3781	3936		Primary Fill of Linear [3677]		
3782			Cut of Posthole	(3789)-(3791)	
3783			Cut of Modern Disturbance	(3784)	
3784			Modern Disturbance Deposit Associated with [3783]		
3785			Cut of Posthole/Stakehole	(3786)	
3786			Fill of Posthole/Stakehole [3785]		3786AA, Fuel, Hammerscale, Magnetic Matter
3787			Cut of Posthole/Stakehole	(3788)	
3788			Fill of Posthole/Stakehole [3787]		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3789			Lowermost Fill of Posthole [3782]		
3790			Fill of Posthole [3782]		3790AA
3791			Uppermost Fill of Posthole [3782]		3791AA, Bone, Magnetic Matter
3792	3609		Cut of Ring-gully Terminus	(3793) (3811)	
3793	3609		Secondary Fill of Ring-gully [3792]		3793AA-AE, 6 x Bone, Fired Clay, Fuel, Magnetic Matter, Hammerscale
3794			Cut of Stakehole Series Related to [3775]	(3795)	Bone
3795			Fill of Stakehole Series [3794]		3795AA
3796	3609		Cut of Ring-gully	(3797) (3798)	
3797	3609		Primary Fill of Ring-gully [3796]		3797AA
3798	3609		Secondary Fill of Ring-gully [3796]		3798AA, 2 x Pottery (Handmade), 2 x Pottery (Handmade?), Magnetic Matter
3799			Post Packing in Posthole [3772]		3799AA, Magnetic Matter
3800			Post Pipe in Posthole [3772]		3800AA, 2 x Bone, Magnetic Matter
3801	3936		Basal Fill of Large Curvilinear Ditch [3765]		3801AA
3802	3936		Fill of Curvilinear Ditch [3765]		
3803	3936		Fill of Curvilinear Ditch [3765]		
3804	3936		Upper Fill of Curvilinear Ditch [3765]		
3805			Cut of Linear Gully	(3806)	
3806			Fill of Linear Gully [3805]		
3807	3609		Fill of Roundhouse Gully [3774]		
3808	3936		Cut of Large Enclosure Ditch	(3809) (3810)	
3809	3936		Fill of Ditch [3808]		
3810	3936		Fill of Ditch [3808]		
3811	3609		Primary Fill of [3792]		3811AA, Fuel, Magnetic Matter
3812			Cut of Possible Posthole	(3813)	
3813			Fill of Possible Posthole [3812]		3813AA
3814			Cut of Posthole	(3815)	3815AA
3815			Fill of Posthole [3814]		
3816			Cut of Possible Stakehole(s)	(3817)	3817AA
3817			Fill of Possible Stakehole(s) [3816]		
3818	3936		Cut of Curvilinear Ditch	(3833)-(3838)	
3819			Cut of Stakehole	(3832)	
3820			Cut of Stakehole	(3831)	

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3821	3609		Cut of Ring-gully	(3822) (3823)	
3822	3609		Fill of Ring-gully [3821]		3822AA
3823	3609		Fill of Ring-gully [3821]		3823AA
3824			Modern Deposit		
3825			Modern Deposit		
3826			Modern Deposit		
3827			Modern Deposit		
3828			Modern Deposit		
3829			Modern Deposit		
3830			Modern Deposit		
3831			Fill of Stakehole [3820]		
3832			Fill of Stakehole [3819]		
3833	3936		Basal Fill of Ditch [3818]		
3834	3936		Fill of Ditch [3818]		3834AA, Fuel
3835	3936		Fill of Ditch [3818]		3835AA, Bone, Fired Clay, Fuel, Magnetic Matter
3836	3936		Fill of Ditch [3818]		
3837	3936		Fill of Ditch [3818]		
3838	3936		Black Upper Fill of Ditch [3818]		
3839			Cut of Linear Gully	(3840)	
3840			Fill of Linear Gully [3839]		
3841			Cut of Feature, Cut by [3821], Poss. Related to 3608	(3842) [3821]	
3842			Fill of Feature [3841]		3842AA, Magnetic Matter
3843	3609		Fill of Ring-gully [3844]		
3844	3609		Cut of Ring-gully	(3843) (3845)	
3845	3609		Fill of Ring-gully [3844]		
3846			Modern Cut		
3847	3932		Cut of Enclosure Ditch	(3848)-(3851)	
3848	3932		Primary Fill of Ditch [3847]		
3849	3932		Secondary Fill of Ditch [3847]		
3850	3932		Upper Fill of Ditch [3847]		
3851	3932		Uppermost Fill of Ditch [3847]		
3852	VOID	VOID	VOID	VOID	VOID
3853	VOID	VOID	VOID	VOID	VOID
3854	3932		Cut of Enclosure Ditch	(3857)-(3860)	
3855	3932		Cut of Enclosure Ditch	(3863)-(3865) (3870) (3872) (3928)	
3856			Cut of Ditch	(3861)	
3857	3932		Primary Fill of Ditch [3854]		3857AA
3858	3932		Secondary Fill of Ditch [3854]		

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3859	3932		Tertiary Fill of Ditch [3854]		
3860	3932		Top Fill of Ditch [3854]		Pottery (Vessel)
3861			Fill of Ditch [3856]		
3862			Cut of Possible Posthole	(3866)	
3863	3932		Primary Fill of Ditch [3855]		3863AA, Fuel
3864	3932		Fill of Ditch [3855]		3864AA, Bone
3865	3932		Fill of Ditch [3855]		3865AA, Fired Clay
3866			Fill of Possible Posthole [3862]		
3867			Cut of Furrow	(3868)	
3868			Fill of Furrow [3867]		
3869	3932		Cut of Enclosure Ditch	(3874)-(3878) (3902)	
3870	3932		Fill of Ditch [3855]		3870AA
3871	3932		Cut of Enclosure Ditch	(3896)-(3901) (3931)	
3872	3932		Redeposited Natural from Flood Event in [3855]		
3873	3932		Cut of Enclosure Ditch	(3885)-(3891)	
3874	3932		Fill of Ditch [3869]		3874AA
3875	3932		Fill of Ditch [3869]		3875AA
3876	3932		Fill of Ditch [3869]		
3877	3932		Fill of Ditch [3869]		
3878	3932		Fill of Ditch [3869]		
3879	3932		Cut of Ditch	(3880)-(3884) (3909)	
3880	3932		Fill of Ditch [3879]		3880AA, Bone
3881	3932		Fill of Ditch [3879]		3881AA, Bone, Fuel
3882	3932		Fill of Ditch [3879]		3882AA
3883	3932		Fill of Ditch [3879]		3883AA
3884	3932		Fill of Ditch [3879]		3884AA, Pottery (Vessel)
3885	3932		Primary Fill of Ditch [3873]		
3886	3932		Secondary Fill of Ditch [3873]		
3887	3932		Fill of Ditch [3873]		
3888	3932		Fill of Ditch [3873]		
3889	3932		Fill of Ditch [3873]		
3890	3932		Fill of Ditch [3873]		
3891	3932		Uppermost Fill of Ditch [3873]		
3892			Cut of Possible Ditch	(3893)	
3893			Fill of Possible Ditch [3892]		
3894			Cut of Furrow	(3895)	
3895			Fill of Furrow [3894]		
3896	3932		Fill of Ditch [3871]		
3897	3932		Fill of Ditch [3871]		
3898	3932		Fill of Ditch [3871]		
3899	3932		Fill of Ditch [3871]		
3900	3932		Second Fill of Ditch [3871]		3900AA
3901	3932		Bottom Fill of Ditch [3871]		3901AA, Fuel, Magnetic Matter, Fired Clay

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
3902	3932		Fill of Ditch [3869]		
3903	3932		Cut of Enclosure Ditch	(3904)-(3908) (3910) (3911)	
3904	3932		Primary Fill of Ditch [3903]		3904AA
3905	3932		Secondary Fill of Ditch [3903]		
3906	3932		Tertiary Fill of Ditch [3903]		
3907	3932		Fill of Ditch [3903]		
3908	3932		Top Fill of Ditch [3903]		
3909	3932		Fill of Ditch [3879]		
3910	3932		Fill of Ditch [3903]		
3911	3932		Redeposited Natural Fill of Ditch [3903]		
3912	*		Group No. for Ring-gully North of 3487	[3411] (3412) [3416] (3417) [3428] (3429) [3460] (3461)	
3913	*		Group No. for Ring-gully Recut of 3487	[3385] (3386) (3390) [3430] (3431) [3434] (3435) [3499] (3500) [3529] (3414) (3531)	
3914	3608		Fill of Ditch [3579]		
3915	3933		Fill of Ditch [3635]		
3916	3933		Fill of Ditch [3635]		
3917			Cut of Furrow	(3672)	
3918	3933		Fill of Ditch [3640]		Fuel, Indsutrial Waste, Magnetic Matter
3919			Post Pipe in Posthole [3772]		
3920			Stone Padding for Post in Posthole [3772]		
3921	3936		Fill of Ditch [3661]		
3922	3936		Fill of Ditch [3711]		
3923	3936		Fill of Ditch [3711]		
3924			Slumping Deposit within Ditch [3709]		
3925			Fill of Ditch [3768]		
3926	3936		Recut of Enclosure Ditch [3117]		
3927	3936		Upper Fill of Enclosure Ditch Cut by Barrel [3719]		
3928	3932		Fill of Ditch [3855]		
3929			Fill of Furrow [3930]		
3930			Cut of Med. Furrow	(3929)	
3931	3932		Fill of Ditch [3871]		
3932	*		Group No. for enclosure ditch	[3192] (3193) (3194) (3195) (3196) (3198) [3847] (3848) (3849) (3850) (3851) [3854] (3857) (3858) (3859) (3860) [3855] (3863) (3864) (3865) (3870) (3872) (3928) [3869] (3874) (3875) (3876) (3877) (3878) (3902) [3871] (3896) (3897) (3898) (3899) (3900) (3901) (3931) [3873] (3885) (3886) (3887) (3888) (3889) (3890) (3891) [3879] (3880) (3881) (3882) (3883) (3884) (3909) [3903] (3904) (3905) (3906) (3907) (3908) (3910) (3911)	
3933	*		Group No. for enclosure ditch	[3395] (3396) (3419) (3420) (3421) (3482) [3468] (3469) (3470) (3471) (3472) [3513] (3545) (3743) (3744)	

Context	Group No.	Phase	Interpretative description	Relationships	Finds and sample information
				(3745) [3577] (3578) (3643) (3644) [3620} (3621) (3652) (3653) [3623] (3624) (3625) (3626) (3627) (3628) (3629) (3630) (3632) [3635] (3656) (3657) (3658) (3915) (3916) [3640] (3641) (3642) (3918) [3669] (3686) (3687) (3688) (3689) (3690) (3691) (3692) (3693) (3694) [3654] (3655) (3673) (3725) (3726)	
3934	*		Group No. for enclosure ditch	[3370] (3371) (3384) [3381] (3382) (3383) (3391) (3392) (3397) [3427] (3440) (3441) [3444] (3446) (3447) [3645] (3646) (3647) [3659] (3660)	
3935	*		Group No. for enclosure ditch	[3008] (3009) (3039) [3110] (3114) (3118) [3115] (3044) (3045) (3046) [3117] (3056) (3057) [3119] (3120) (3121) (3122) [3158] (3159) (3160) (3161) [3170] (3164) [3363] (3364) (3365) [3368] (3369) (3374) [3403] (3404) (3406) [3426] (3438) (3439) [3449] (3445) (3448) (3450) [3465] (3466) (3508) [3648] (3649) (3650) (3651)	
3936	*		Group No. for enclosure ditch	[3004] (3005) (3006) (3007) [3015] (3016) (3017) [3111] (3112) (3113) [3116] (3050) (3051) [3156] (3157) [3162] (3163) [3617] (3636) (3637) (3638) (3639) [3661] (3662) (3663) (3664) (3921) [3675] (3676) [3703] (3729) (3748) (3749) (3750) [3705] (3706) (3727) (3728) [3711] (3712) (3922) (3923) [3765] (3801) (3802) (3803) (3804) [3768] (3769) (3779) (3780) [3808] (3809) (3810) [3818] (3833) (3834) (3835) (3836) (3837) (3838) [3926] (3058) (3059) (3060) (3927)	
3937	*		Group No. for ditch	[3677] (3678) (3781) [3720] (3721) (3722) [3723] (3724) (3752) [3734] (3735) (3736)	
3938	*		Group No. for ditch	[3200] (3229) (3230) [3236] (3237) (3238) [3272] (3273) (3274) [3309] (3310) (3311)	
3939	*		Group No. for ditch	[3312] (3313) [3314] (3315) [3324] (3325) [3326] (3327) [3330] (3331) (3332)	
3940	*		Group No. for linear gully	[3106] (3107) [3140] (3141) [3154] (3155) [3245] (3246) [3247] (3248) [3249] (3250) [3252] (3253) [3254] (3255) [3256] (3257) [3258] (3259) [3342] (3343) [3354] (3355)	

APPENDIX B

POTTERY REPORT

C.G. Cumberpatch BA PhD, Freelance Archaeologist

INTRODUCTION

The pottery assemblage from excavations carried out in 2017 at East Wideopen Farm was examined by the author on 20th and 26th October 2017. It followed an earlier report on material recovered from an excavation carried out in 2015 (Cumberpatch 2016a). The assemblage from the 2017 excavation consisted of eight sherds, weighing 219 grams and representing a maximum of seven vessels. The data are summarised in Table B1.

THE POTTERY

The hand-made pottery

The assemblage of hand-made pottery consisted of five sherds of pottery, representing a maximum of four vessels. The pottery was classified using an updated and refined version of the scheme devised for use with the assemblages from the Easington to Ganstead gas pipeline (Cumberpatch 2016b, 104-109, table 16) and other recent projects (Leary and Cumberpatch 2014. Cumberpatch n.d.). It was based upon the scheme proposed by Didsbury (2004; 2009a; 2009b; unpublished; n.d.), which distinguishes primarily between fabrics with calcareous inclusions (H1/H4), with non-crystalline inclusions (H2) and with mixed types of inclusions (H3). These groups being themselves heterogeneous, modifying terms have been introduced to refine the categories. These are based on the character of the inclusions, specifically their type, shape and size.

All of the sherds were of H2 type with both coarse rock and fine quartz variants represented.

The sherds included two examples of fingernail impressed rims in H2 fabrics, both from context **3798** and most probably parts of an open jar or jars (although a bowl cannot be ruled out) together with a flat-topped rim sherd, also most probably from an open jar. This form has been described in detail elsewhere (Cumberpatch 2016b, 114-5), as has the incidence of finger-tip decoration both generally (Cumberpatch 2016b, 123-4) and with specific reference to open jars (Leary and Cumberpatch 2014, 49). The form seems to have enjoyed a very long life, spanning much of the pre-Roman Iron Age and the Roman period and there is good evidence for dates within the period between the 2nd century BC and the 4th century AD (Leary and Cumberpatch 2014, 49; Cumberpatch 2016b, 114-5).

The medieval pottery

The 2017 excavations produced three sherds of severely abraded medieval pottery from contexts **3003**, **3860** and **3884**, none of which was associated with any of the late prehistoric material. None of the sherds could be definitely attributed to a known regional type, but all were, in general terms, consistent with the broad outline of medieval pottery from the area. Oxidised wares tend to date to the late 13th and 14th centuries, although earlier dates are also

possible. The very small quantity involved does not suggest any great intensity of activity in the medieval period and the condition of the sherds may indicate prolonged exposure in the ground surface before burial.

ARCHIVING AND CURATION

Although small in size and in poor condition, the assemblage is of significance because of its unusual nature and the presence of a substantial parts of rare, decorated, vessels, including a bowl and a probable jar, both with decorated rims. For this reason, it is recommended that the assemblage be deposited in its entirety in an appropriate museum or archive depository where it will be available for further research in the future.

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Table B1: Pottery assemblage from East Wideopen Farm.

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes	Context notes
3003	Oxidised Sandy ware	1	2	1	BS	Hollow ware	U/Dec	Medieval	Very heavily abraded oxidised sandy fabric; context number missing from bag; inserted with reference to finds catalogue	'cleaning layer'
3710	H2 Coarse rock	1	77	1	Rim	Open jar	Flat-topped rim	900BC – LC4thAD+	Large, well-sorted angular rock frags up to 16mm in a fine sandy fabric; thick black burnt deposit ext	
3798	H2 Coarse rock	2	75	1	BS	Hollow ware	U/Dec	PRIA – Roman	Oxidised ext, reduced core; common red rock frags up to 6mm, mainly finer	
3798	H2 Fine quartz	1	12	1	Rim	Open jar	Fingernail impressed rim	900BC – LC4thAD+	Fine black sandy fabric w/ abundant fine quartz; thin black burnt deposit ext	
3798	H2 Fine quartz	1	26	1	Rim	Open jar	Fingernail impressed rim?	900BC – LC4thAD+	Fine black sandy fabric w/ abundant fine quartz; thin black burnt deposit ext	'found near surface while cleaning'
3860	Micaceous Sandy ware	1	24	1	Rim	Jar	U/Dec	Medieval	Everted wedge-shaped rim w/ lid-seated profile; bright orange surfaces, grey core w/ abundant fine quartz & moderate fine mica	
3884	Oxidised Sandy ware	1	3	1	BS	Hollow ware	U/Dec	Medieval	Abundant fine sub-rounded quartz up to 0.5mm	
	Total	**8**	**219**	**7**						

APPENDIX C

WORKED STONE REPORT

John Cruse

COMMENT

Quern fragment (RF001) comes from a beehive quern. These are typically found in and around 'native' settlements, but are quite rare in 'Romanised' environments, such as settlements close to Roman roads. Although early examples are known from the last few centuries BC, beehive querns continue to be used well into the Roman period.

Whilst the main beehive distribution is focussed upon Yorkshire (between the Tees and the Don more than 1,200 examples have been recorded by the Yorkshire Quern Survey ['YQS']), their use continues up the North-East coast, with 30 beehives being known from the Northumberland Coastal Plain and with smaller clusters continuing to be found on the better farmland, as far north as the Forth Estuary.

Excavations at Pegswood Moor by PCA discovered two intact beehive bases (SF 7, dated to between 2nd-1st century BC, and SF 18, dated to between the 1st and 2nd century AD). Of the two upper stones, one was intact but had most of its grinding surface edge removed (SF 16) and another (SF 17, dated to between the 1st and 2nd century AD) had its edges similarly removed, plus the top of its hopper, before it was then quartered —just like our RF 001 (Wright 2009, 56).

Earlier investigations at East Wideopen by ASDU in 2012 yielded a beehive base (SF 1) that had been split in half (Cruse 2013). Beehives from other nearby local sites, reported by Heslop and Bateman (2013, 156-8) include:

- East Brunton—an intact base (SF 113). N.B.: also from a ring-gully.
- West Brunton—an upper stone with its hopper completely detached (SF 259), two intact upper stones (SF 258 and SF 40) and an upper stone which had been halved (SF 273).
- Blagdon Park 2—three likely bases, of which two were divided (SF 8 and 22) and the other (SF 24) 'had all of its grinding face removed', together with apparent damage to its basal area.

RF001 has had its grinding surface edges and the upper section of its hopper deliberately removed, followed by the quartering of the remaining core. This was a relatively common practice (see above; Heslop 2008, 68-72), particularly amongst users whose habits seem to have been little affected by the more casual disposal practices of 'Romanised' quern users. A YQS analysis of 203 beehive querns in 2015 revealed that 61 of the stones had been divided and, of those, some 25% had also had over 90% of their grinding surface edge removed.

Such irrational behaviour may have extra relevance if RF001 is confirmed to be a 'votive deposit', as it demonstrates that the local inhabitants at Wideopen not only shared the same quern types as their neighbours further south, but also disposed of their querns in similar ways.

ILLUSTRATION RECOMMENDATIONS:

In view of its interesting treatment, fragment RF001 should be illustrated: a reconstruction drawing is likely to be more informative than a photograph.

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CATALOGUE

Beehive Upper Stone RF 001 Context 3593 – Cut of Ring-gully 3592

Preservation: ca 15% fragment, with ca 85% of its grinding surface edge chipped away, 100% of its hopper top removed and the remaining core divided radially into quarters: Impact marks suggest that the last two operations were carried out using a metal point.

Features: Outer surface is neatly pecked in a 'classic' beehive shape, with evidence of some secondary abrasion: only a small area of the gently concave hopper survives (ca 30x50mm): grinding surface is flat, with the outer 30mm worn smooth: assuming a vertical feed-pipe, the grinding surface has worn asymmetrically (10°).

Lithology: Fine grain sandstone: no fossils: some secondary ferrous staining on the fracture surfaces: probably sourced from local Coal Measures.

Dimensions: Diameter ca 320mm: Height >160mm: Hopper diam.>60mm, depth >90mm: Weight 3.5kg (est. intact ca.23kg): Estimated usage before deposition ca 50%: YQS 7661.

Natural Stone Block RF 002 Context 3593 – Cut of Ring-gully 3592

Dimensions: Triangular bock 90mm x 110mm x 110mm with natural faces, rounded by abrasion, fractured at a length of 85mm. No signs of human usage: Weight 1.2kg.

APPENDIX D

ARCHAEOBOTANY & MOLLUSCS REPORT

Jonathan Baines & Hannah Russ

INTRODUCTION

A deceptively broad floral diversity, from a rather slim assemblage, was recovered from the environmental samples taken at East Wideopen Farm 2017. Although no pulses, fruit or herbs were identified, the excavated features did reveal a number of cereal grains, arable weeds and representatives of the wider surrounding vegetation. Oak and coal dominated the fuel remains. Most of the charcoal was roundwood, rather than larger timbers or artefactual remains. One terrestrial snail shell was found and the archaeobotanical record suggests soil conditions for agriculture were poor and leaning towards acidic.

METHOD

The bulk environmental samples were processed at NAA. The samples were processed with 500 micron retention and flotation meshes using the Siraf method of flotation (Williams 1973). Once dried, the residues from the retention mesh were sieved to 0.5 mm and the ecofacts forwarded to the relevant specialists. The plant remains and charcoal were identified to species as far as possible, using Schweingruber (1990), Hather (2000), Cappers *et al*. (2006), Jacomet (2006) and the NAA reference collections. The mollusc was identified using Pfleger's guide (2000) and the nomenclature is consistent with Animal Base: http://www.animalbase.uni-goettingen.de.

RESULTS

Charcoal

Though the charcoal assemblage is dominated by oak (*Quercus*), eight other taxa were identified, two of which: apple subfamily (*Maloideae*) and cherry/plum (*Prunus*) only occurred once and poplar/willow (*Populus*/*Salix*) just twice. This poor diversity, in this case, does not indicate a particular preference or dedicated exploitation of one or two taxa, rather it highlights the abundance of oak trees in the surrounding woodland. The small amount of field maple (A*cer campestre*) in burial **3358** is more likely a remainder of fuel, rather than furniture, and highlights the opportunistic collection of firewood. All recovered fragments are from native species.

Seed and Fruit

Pit **3491** revealed an assemblage that was compiled through the deposition of refuse from different domestic activities and plant usage. The 243 spelt grains (*Triticum spelta*) reflect the discard of cereals that accidentally charred during the dehusking process. The absence of barley (*Hordeum*) suggests the crop was dried alone. The arable weeds, such as wild radish

(*Raphanus raphanistrum*) and knotweeds (*Polygonum aviculare* and *Persicaria* sp.) represent a different rubbish disposal. The third distinct component represents various ecologies, and whilst these plant remains may be one dump, it could be multiple events. Heathgrass (*Danthonia decumbens*) prefers poor and more acidic soils, it forms tussocks and is not good animal fodder. This species, the four sedge taxa (*Carex* sp.), the blinks (*Montia fontana*) and the rushes (*Scirpus* sp. and *Eleocharis palustris*) were probably laid down as bedding for animals and humans alike. They are typical of the verges between agricultural plots, abandoned ground and nearby wetlands, but not really cultivated fields or pastures. The grassleaf orach seeds (*Atriplex littoralis*) suggest the previous taxa may have been collected at the coast, or hint at saline soil conditions. Regardless, because the overall ecological mixture of this pit indicates poor agricultural land in the vicinity, the spelt wheat may have been cultivated further away, and hence in need of on-site dehusking. The many large-seeded grasses and the fescue-ryegrass suggest forage waste was disposed of through fire, possibly enveloping local weeds like ribwort (*Plantago lanceolata*) and other on-site flora, in yet another activity preserved in this pit. The wetland character of the site is further evinced in the recovery of gypsywort (*Lycopus europaeus*) from ring-gully terminus **3385**.

Ring-gully **3792** presents a contrasting picture. There the chaff of both barley and wheat were identified alongside a more homogenous agricultural assemblage of arable weeds and cereals. Curly dock (*Rumex crispus*) may have been consumed, or like the ubiquitous heathgrass (perhaps it was used as thatch) its seeds were plentiful in the local environment and preserved in the various on-site rubbish burning events. Flora arbitrarily caught up in these events is further evinced in the recovery of thistle (*Carduus*/*Cirsium*), woodland germander (*Teucrium scorodonia*), buttercups and violets.

Ring-gully **3540** preserved the traces of two other edible plants: onion (*Allium cepa*) and vetch (*Lathyrus*/*Vicia*).

The presence of emmer (*Triticum dicoccum*) on site is evinced in the possible cremation burial **3400**.

So far the discussion concentrated on charred plant remains, but a note must be made of the considerable occurrence of the rare, uncharred, corn buttercup (*Ranunculus arvensis*) and the cinquefoil specimens (*Potentilla* sp.). They, as well as the many goosefoot, knotweeds and potamogeton are very likely modern contamination.

Coal

Bituminous or anthracite coal fragments were recovered from all types of excavated archaeological features (see Table D1). It is likely that the bulk of these finds represent contamination from modern deposits. However, recovery of substantial coal fragments from postholes, for example **3473** and **3772**, do suggest coal was exploited on site in antiquity (Travis 2008). The retrieval of 1,585 grams of coal from the fill of the possible cremation burial (**3400**) indicates it was not restricted to domestic heating purposes.

Molluscs

One snail shell in the *Enidae* family, either *Ena montana* (Draparnaud 1801) or *Merdigera obscura* = *Ena obscura* (Müller 1774) was found.

Table D1: Coal fragments, weight is recorded in grams.

Context	Sample	Weight	Context	Sample	Weight	Context	Sample	Weight
2472	aa	0.1	3384	aa	7.9	3676	aa	1.4
3020	aa	8	3386	ad	0.2	3678	aa	0.1
3124	aa	2.1	3386	ad	14.7	3678	aa	3
3124	aa	0.5	3386	ac	13.2	3691	aa	10
3128	aa	1.3	3386	aa	5.4	3700	aa	4
3128	aa	0.5	3386	ab	8.6	3721	aa	2.6
3139	aa	0.2	3386	ae	22.9	3724	aa	4.3
3155	aa	2.3	3386	ae	1.5	3727	aa	2
3157	aa	4.9	3388	aa	0.8	3728	aa	4
3161	aa	0.3	3402	aa	1585	3729	aa	1.2
3161	aa	0.3	3402	aa	6	3735	aa	11
3163	aa	0.6	3402	aa	5.9	3736	aa	4.6
3172	aa	0.3	3412	aa	0.3	3738	ac	4.9
3176	aa	2.6	3412	ae	31.5	3738	aa	10.6
3184	aa	8	3412	aa	1.7	3748	aa	0.6
3187	aa	0.1	3414	aa	45.6	3752	aa	3.7
3188	aa	18.9	3415	aa	2.5	3752	aa	0.4
3189	aa	3.4	3415	aa	4.5	3758	aa	1.5
3191	aa	7.4	3417	aa	6	3759	aa	116
3193	aa	2.4	3419	aa	4.5	3759	aa	25
3194	aa	0.1	3423	aa	28.9	3759	aa	0.3
3221	aa	0.3	3441	aa	0.1	3761	aa	0.1
3221	aa	3.2	3448	aa	8.4	3763	ab	8
3246	aa	0.3	3450	aa	1.8	3763	aa	14.1
3248	aa	0.2	3461	aa	3	3764	aa	8
3253	aa	0.1	3469	aa	15.6	3769	aa	8.1
3255	aa	0.2	3470	aa	4	3769	aa	0.1
3255	aa	6.6	3471	aa	5.7	3771	aa	29.6
3257	aa	0.2	3472	aa	1.7	3773	aa	0.4
3276	aa	0.8	3472	aa	0.8	3773	aa	5.3
3276	aa	0.1	3474	aa	2.9	3773	aa	2.1
3284	aa	0.4	3481	aa	32	3776	aa	5.3
3284	aa	0.1	3490	ac	7.9	3786	aa	0.3
3284	aa	1	3490	ab	13.6	3786	aa	1.9
3295	aa	0.1	3500	aa	17	3786	aa	3.9
3304	aa	0.6	3502	aa	0.2	3790	aa	1.1
3304	aa	0.1	3507	aa	80	3790	aa	0.5
3306	aa	0.5	3507	aa	1	3791	aa	0.1
3306	aa	0.1	3510	aa	5.7	3791	aa	5.4
3310	aa	0.2	3510	aa	3.6	3793	ad	46
3311	aa	0.1	3515	aa	12.6	3793	ae	46.7
3313	aa	1.4	3521	ad	31.8	3793	ae	1
3315	aa	1.3	3525	aa	10.7	3793	ac	36.5
3315	aa	0.1	3527	aa	1.1	3793	ab	192
3321	aa	0.3	3533	aa	2	3795	aa	4.5
3325	aa	2.4	3541	aa	0.3	3797	aa	0.2
3327	aa	1.5	3561	aa	7	3797	aa	35
3327	aa	0.2	3564	aa	17	3798	aa	15.7
3327	aa	0.1	3566	aa	0.4	3798	aa	10.5
3331	aa	1	3570	aa	4.8	3799	aa	3.6
3332	aa	1.8	3570	aa	1.4	3800	aa	1.2
3332	aa	0.4	3570	aa	0.1	3801	aa	2.1
3337	aa	19.8	3572	aa	9	3801	aa	0.3
3337	aa	0.1	3576	aa	3.8	3815	aa	2.8
3343	aa	1.2	3578	aa	0.3	3815	aa	0.1
3343	aa	0.2	3596	aa	0.6	3822	aa	0.3

Context	Sample	Weight	Context	Sample	Weight	Context	Sample	Weight
3349	aa	3.7	3597	aa	0.7	3822	aa	43.3
3360	aa	10	3603	aa	17	3823	aa	2.2
3362	aa	0.9	3624	aa	0.4	3835	aa	1.2
3362	aa	0.1	3624	aa	0.3	3842	aa	0.2
3364	aa	2	3636	aa	1.8	3842	aa	1.7
3364	aa	1.3	3641	aa	0.5	3857	aa	1
3365	aa	18.8	3642	aa	21.7	3864	aa	2.9
3373	aa	0.3	3642	aa	0.2	3864	aa	0.5
3374	aa	2.1	3644	aa	7.4	3874	aa	0.4
3374	aa	0.1	3647	aa	1.3	3874	aa	0.3
3376	aa	4.3	3657	aa	0.5	3875	aa	0.1
3377	aa	2.3	3657	aa	1	3875	aa	0.5
3377	aa	0.2	3662	aa	7	3880	aa	1.5
3379	aa	1.8	3662	aa	0.5	3883	aa	0.3
3379	aa	0.1	3662	aa	0.1	3904	aa	0.2
3382	aa	0.5	3671	aa	3.7	3904	aa	0.1
3383	aa	0.1	3672	aa	0.2	3918	aa	2
3383	aa	0.6						

Table D2: Charred seed and fruit

Context	Sample	Identification	Amount	Context	Sample	Identification	Amount
3126	aa	Spergula arvensis	1	3581	aa	Triticum spelta	1
3155	aa	Fabaceae indet.	1	3585	aa	Fabaceae indet.	1
3155	aa	Fallopia convolvulus	1	3601	aa	Chenopodium sp.	1
3184	aa	Potamogeton sp.	2	3603	aa	tuber	1
3191	aa	Asteraceae indet.	1	3605	aa	indet. Cerealia	1
3191	aa	Brassica sp.	1	3610	aa	Danthonia decumbens	2
3304	aa	Polygonum aviculare	1	3610	aa	Triticum spelta	1
3315	aa	Chenopodium sp.	1	3642	aa	Hordeum (straight)	1
3321	aa	Fabaceae indet.	1	3642	aa	Lathyrus / Vicia sp.	1
3321	aa	Poaceae indet 2 - 5 mm	1	3642	aa	Teucrium scorodonia	1
3332	aa	Chenopodium sp.	7	3656	aa	Potamogeton sp.	12
3337	aa	Chenopodium sp.	2	3671	aa	Carex sp. (trigonous)	30
3362	aa	Poaceae indet > 5 mm	1	3671	aa	chaff dicoccum	1
3386	ae	Arrhenatherum elatius	1	3671	aa	Danthonia decumbens	2
3386	ac	Carex sp. (trigonous)	1	3691	aa	Carduus / Cirsium	3
3386	ac	Danthonia decumbens	3	3691	aa	Triticum sp.	1
3386	ac	Lycopus europaeus	1	3735	aa	Danthonia decumbens	1
3386	ad	Poaceae indet 2 - 5 mm	1	3736	aa	tuber	1
3386	ae	Poaceae indet 2 - 5 mm	1	3738	aa	Festuca / Lolium sp.	1
3386	ac	Spergula arvensis	1	3738	aa	Hordeum (straight)	1
3388	aa	Fallopia convolvulus	1	3738	ac	indet. Cerealia	1
3388	aa	Teucrium scorodonia	1	3738	aa	Poaceae indet 2 - 5 mm	1
3402	aa	Festuca / Lolium sp.	4	3759	aa	Astragalus/Medicago/Trifolium	1
3402	aa	indet. Cerealia	4	3759	aa	Bromus sp.	1
3402	aa	Poaceae indet 2 - 5 mm	2	3759	aa	Carex sp. (trigonous)	8
3402	aa	Triticum dicoccum	2	3759	aa	Danthonia decumbens	1
3402	aa	Triticum spelta	3	3759	aa	Fabaceae indet.	2
3402	aa	tuber	1	3759	aa	indet. Cerealia	4
3412	aa	Polygonum aviculare	1	3759	aa	Poaceae indet 1 - 2 mm	1
3414	aa	Hordeum (straight)	1	3759	aa	Poaceae indet 2 - 5 mm	3
3414	aa	Plantago lanceolata	1	3759	aa	Triticum sp.	3
3414	aa	Triticum sp.	1	3759	aa	Triticum spelta	2
3414	aa	undetermined 1 - 2 mm	2	3759	aa	undetermined > 5 mm	1
3448	aa	Poaceae indet 2 - 5 mm	1	3764	aa	Carex sp. (trigonous)	3
3448	aa	Triticum sp.	1	3764	aa	Danthonia decumbens	3

Context	Sample	Identification	Amount	Context	Sample	Identification	Amount
3469	aa	indet. Cerealia	1	3764	aa	Poaceae indet 2 - 5 mm	1
3471	aa	Rubus saxatilis	3	3764	aa	Viola sp.	1
3481	aa	Poaceae indet 2 - 5 mm	3	3769	aa	Fumaria officinalis	1
3500	aa	Astragalus/Medicago/Trifolium	2	3773	aa	Hordeum (straight)	5
3500	aa	Danthonia decumbens	1	3773	aa	Persicaria sp.	1
3500	aa	indet. Cerealia	1	3773	aa	Poaceae indet 2 - 5 mm	3
3500	aa	Persicaria sp.	1	3773	aa	Triticum sp.	4
3500	aa	Poaceae indet 2 - 5 mm	1	3773	aa	Triticum spelta	4
3500	aa	Rumex crispus	1	3786	aa	Poaceae indet 2 - 5 mm	2
3502	aa	Danthonia decumbens	1	3791	aa	Arrhenatherum elatius	1
3507	aa	Astragalus/Medicago/Trifolium	1	3791	aa	Danthonia decumbens	1
3507	aa	Atriplex littoralis	3	3793	ac	Bromus sp.	1
3507	aa	Bromus sp.	5	3793	ae	Carex (trigonous)	1
3507	aa	Carex sp. (flat)	2	3793	aa	Carex sp. (flat)	1
3507	aa	Carex sp. (trigonous)	47	3793	ac	Carex sp. (trigonous)	1
3507	aa	Caryophyllaceae indet.	2	3793	ae	Carex sp. (trigonous)	1
3507	aa	chaff triticum	5	3793	ae	chaff triticum	3
3507	aa	Chenopodium sp.	5	3793	aa	chaff triticum	10
3507	aa	Danthonia decumbens	10	3793	aa	chaff hordeum	1
3507	aa	Eleocharis palustris	1	3793	ad	Chenopodium sp.	1
3507	aa	Festuca / Lolium sp.	3	3793	ae	Danthonia decumbens	12
3507	aa	Montia fontana	6	3793	aa	Danthonia decumbens	8
3507	aa	Persicaria sp.	1	3793	ad	Danthonia decumbens	4
3507	aa	Plantago lanceolata	1	3793	aa	Fabaceae indet.	1
3507	aa	Poaceae indet > 5 mm	2	3793	aa	Hordeum (straight)	1
3507	aa	Poaceae indet 1 - 2 mm	17	3793	aa	indet. Cerealia	1
3507	aa	Poaceae indet 2 - 5 mm	44	3793	ae	indet. Cerealia	4
3507	aa	Polygonum aviculare	1	3793	aa	indet. Cerealia	1
3507	aa	Ranunculus sp.	1	3793	ad	indet. Cerealia	3
3507	aa	Raphanus raphanistrum	3	3793	ad	Poaceae indet 1 - 2 mm	3
3507	aa	Scirpus sp.	2	3793	ac	Poaceae indet 2 - 5 mm	2
3507	aa	Silene sp.	2	3793	aa	Poaceae indet 2 - 5 mm	5
3507	aa	Triticum sp.	18	3793	ae	Poaceae indet 2 - 5 mm	3
3507	aa	Triticum spelta	243	3793	ae	Raphanus raphanistrum	1
3507	aa	undetermined 2 - 5 mm	4	3793	ac	Rumex crispus	1
3515	aa	Danthonia decumbens	1	3793	aa	Rumex crispus	1
3521	ad	Astragalus/Medicago/Trifolium	1	3793	ad	Rumex crispus	2
3521	ae	Carex (trigonous)	1	3793	ad	Scirpus sp.	1

Context	Sample	Identification	Amount	Context	Sample	Identification	Amount
3521	ad	Carex sp. (trigonous)	2	3793	ac	Triticum sp.	1
3521	ab	Chenopodium sp.	1	3793	ad	Triticum spelta	1
3521	ad	Danthonia decumbens	5	3793	ae	undetermined 1 - 2 mm	1
3521	ad	Hordeum (straight)	1	3793	aa	Danthonia decumbens	2
3521	aa	indet. Cerealia	1	3798	aa	Raphanus raphanistrum	1
3521	aa	Poaceae indet 2 - 5 mm	1	3798	aa	Poaceae indet 2 - 5 mm	3
3521	ad	Poaceae indet 2 - 5 mm	2	3799	aa	Poaceae indet 2 - 5 mm	1
3521	ad	Teucrium scorodonia	1	3800	aa	Hordeum (straight)	1
3541	aa	Allium cepa	1	3811	aa	indet. Cerealia	2
3541	aa	Hordeum (straight)	1	3811	aa	Lamiaceae indet.	1
3541	aa	Lathyrus / Vicia sp.	1	3811	aa	Carex sp. (trigonous)	1
3556	aa	Poaceae indet > 5 mm	2	3822	aa	Danthonia decumbens	1
3570	aa	tuber	1	3822	aa	Poaceae indet 1 - 2 mm	1
3576	aa	tuber	1	3822	aa	Danthonia decumbens	1

Table D3: Charcoal fragments, weight is recorded in grams.

Context	Sample	Weight	Identification	Amount	Context	Sample	Weight	Identification	Amount
3067	aa	0.1	Fraxinus	100%	3558	aa	1.9	Alnus / Corylus	100%
3155	aa	76.4	Quercus	100%	3559	aa	1.2	Quercus	100%
3184	aa	0.3	Quercus	100%	3566	aa	5.8	Maloideae	50%
3191	aa	0.6	Quercus	100%	3566	aa		Quercus	50%
3246	aa	0.6	Prunus	100%	3566	aa	0.8	Quercus	100%
3266	aa	0.2	Quercus	100%	3574	ac	0.2	Alnus / Corylus	100%
3347	aa	0.4	Quercus	100%	3576	aa	5.4	Betula	50%
3373	aa	0.9	Quercus	100%	3576	aa		Alnus / Corylus	50%
3374	ab	0.4	Quercus	100%	3578	aa	0.2	Quercus	100%
3377	aa	0.2	Acer campestre	100%	3581	aa	0.2	Betula	100%
3383	aa	0.1	undet. Hardwood	100%	3585	aa	0.1	undet. Hardwood	100%
3384	aa	0.2	Quercus	100%	3589	aa	4	Quercus	100%
3386	aa	0.7	Quercus	100%	3597	aa	0.1	Quercus	100%
3386	ab	0.5	Betula	100%	3601	aa	0.5	undet. Hardwood	100%
3386	ac	0.5	Quercus	100%	3603	aa	0.5	roundwood	100%
3402	aa	6.7	Quercus	50%	3642	aa	0.8	Quercus	100%
3402	aa		Fraxinus	50%	3644	aa	0.2	Quercus	100%
3412	ad	0.3	Calluna vulgaris	100%	3647	aa	0.9	Quercus	100%
3412	aa	0.2	Populus / Salix	100%	3657	aa	0.1	Quercus	100%
3441	aa	0.1	roundwood	100%	3671	aa	0.2	Prunus	100%

Context	Sample	Weight	Identification	Amount	Context	Sample	Weight	Identification	Amount
3448	aa	0.3	undet. Hardwood	100%	3672	aa	0.2	Quercus	100%
3461	aa	0.1	undet. Hardwood	100%	3683	aa	0.3	undet. Hardwood	100%
3507	aa	37	Cornus	50%	3735	aa	0.1	roundwood	100%
3507	aa		Betula	50%	3738	aa	0.1	Quercus	100%
3521	ae	5	undet. Hardwood	40%	3741	aa	25	Fraxinus	100%
3521	ae		Calluna vulgaris	60%	3763	aa	0.9	undet. Hardwood	100%
3521	ac	3.3	Calluna vulgaris	100%	3763	ab	0.6	Quercus	100%
3521	ab	1.9	Calluna vulgaris	100%	3773	aa	0.4	Calluna vulgaris	100%
3521	ad		root indet.	5%	3793	ae	16.8	Fraxinus	100%
3521	ad	5.1	Fraxinus	45%	3793	aa	13.5	Fraxinus	100%
3521	ad		roundwood	50%	3794	ab	0.2	Populus / Salix	100%
3521	aa	2	Betula	100%	3815	aa	0.1	undet. Hardwood	100%
3525	aa	3	Quercus	100%	3822	aa	0.6	undet. Hardwood	100%
3535	aa	0.1	Quercus	100%	3904	aa	0.3	undet. Hardwood	100%
3556	ab	4.5	Alnus / Corylus	100%	3918	aa	0.3	Quercus	100%

RECOMMENDATIONS

In view of the botanical diversity retrieved from pit (**3491**), further analyses of the lesser priority samples may improve our understanding of the vegetation surrounding the site.

Table 4: recommended potential radiocarbon samples

Context	sample		ID	
3402	aa	charcoal	Fraxinus	ash
3448	aa	grain	Triticum	wheat
3507	aa	grain	Triticum spelta	spelt
3507	aa	grain	Triticum spelta	spelt
3541	aa	grain	Hordeum	barley
3556	ab	charcoal	Alnus / Corylus	alder / hazel
3576	aa	charcoal	Alnus / Corylus	alder / hazel
3738	aa	grain	Hordeum	barley
3759	aa	grain	Triticum spelta	spelt
3773	aa	grain	Hordeum	barley
3793	aa	grain	Hordeum	barley

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APPENDIX E

ANIMAL BONE ASSESSMENT REPORT

Dr Lizzie Wright

INTRODUCTION

This report presents an assessment of the animal bone assemblage recovered during works at East Wideopen Farm, Wideopen, North Tyneside, in 2017. The remains were recovered during archaeological excavation by Northern Archaeological Associates Ltd (NAA) prior to the development of the Five Mile Park area by Bellway Homes Ltd.

The investigated area comprised an irregularly shaped plot of land, approximately 0.6045 ha in size, situated to the east of Wideopen village. To the north and east was the northern extent of the Five Mile Park development area and to the south was a bridle path leading west into Wideopen village and east to the remains of the Seaton Burn Waggonway. To the south of the bridle path was the construction phase related to East Wideopen Farm (NAA 2016).

A number of schemes of archaeological investigation have taken place across the Five Mile Park development area since 2009, including evaluations, desk based assessments and geophysical survey by Tyne and Wear Museum Archaeology (TWMA), and excavation conducted by Archaeological Services Durham University (ASDU). Evaluation uncovered evidence for ditches and gullies, most likely associated with a potential Iron Age / Romano-British enclosure identified as a cropmark on aerial photographs (Frain 2009). This cropmark is located in the playing fields situated immediately to the west of the development area. A programme of archaeological strip, map and record conducted by Archaeology Services Durham University (ASDU) demonstrated that the remains uncovered during the evaluation were in fact part of a larger complex of features associated with occupation and an extended field system that spread out to the south and east (ASDU 2014).

Further excavation on the development, conducted by NAA between October 2015 and February 2016 supported the theory of a large dispersed, multi-phase settlement in line with the dates suggested by ASDU (2014). The 2016 NAA excavation took place to the immediate south of East Wideopen Farm 2017, revealing significant later prehistoric remains including an extended field system and a possible rectilinear enclosure along with associated occupational evidence dating to circa the 1st century AD (NAA 2016). In addition to the prehistoric remains, a stone and brick building, possibly a winding house associated with the Wideopen colliery was uncovered.

Animal remains were uncovered during both the 2016 and 2017 excavations. The assessment of the remains from the 2016 works describes an assemblage of 58 identifiable specimens (Zochowski 2015), made up of cattle (*Bos taurus*), sheep/goat (*Ovis aries*/*Capra hircus*) and equid (*Equus* sp.) remains, with cattle the dominant species. These species are typical of those found at sites spanning this broad period, but the small size of the assemblage restricted much further analysis or interpretation. The larger assemblage recovered during the 2017 excavations and assessed in this report will increase the size of the dataset from East Wideopen Farm and make for a much more useful assemblage in terms of our interpretation of the site and its importance in the wider context.

Animal remains from the 2017 excavations were attributed broadly to either Iron Age or Post-Medieval contexts. A more refined chronology will be available for the full analysis.

METHODS

Identifications were made using the reference collection held at Northern Archaeological Associates (Barnard Castle, UK), in addition to the use of identification atlases and papers (e.g. Schmid 1972; Barone 1976; Prummel 1988). Sheep (*Ovis aries*) and goat (*Capra hircus*) distinction was attempted (using Kratochvil 1969; Boessneck 1969; Zeder and Lapham 2010) but it was not possible to assign any specimens to species.

The material was recorded according to a selective diagnostic-zone recording protocol. This involved the recording of a pre-defined set of skeletal parts, defined as 'countable', which were then used in the quantification of species and body parts. Zones followed those laid out by Bertini Vacca (2012). The Number of Identified Specimens (NISP), were calculated for each species; this was obtained by tallying the number of 'countable' identified specimens for each taxa identified.

The fusion of post-cranial bones for all taxa was recorded as 'fused', 'fusing' or 'unfused' (Albarella and Davis 1994), if the appropriate parts of the bone were present. Where possible, tooth eruption and wear information were recorded according to Grant (1982) (cattle and pig) and Payne (1973) (sheep/goat).

Evidence of bone modifications, including butchery, pathology, gnawing and burning was recorded. Surface preservation was also indicated as 'excellent', 'good', 'medium', 'bad or 'awful'. Where possible measurements were taken according to von den Driesch (1976), Davis (1992) and Albarella and Payne (2005).

RESULTS

Preservation

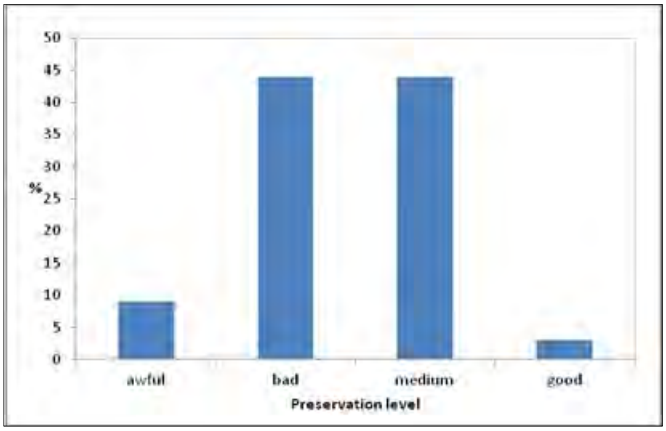

Fig. E1: Animal bone surface preservation across the East Wideopen 2017 assemblage.

The majority of bones showed a bad or medium state of surface preservation (Fig. E1), indicating that preservation conditions were not great overall at the site. Bad surface preservation could make bone modification marks such as butchery or gnawing more difficult to identify. However, approximately half of the assemblage showed medium or good preservation, which indicates the potential for a useful dataset.

Species representation

The animal bone assemblage comprised of 101 specimens with countable zones (NISP; Table E1). The identified specimens comprise of cattle (*Bos taurus*), sheep/goat (*Ovis aries*/*Capra hircus*) pig (*Sus domesticus*), and Equid (*Equus* sp.) plus a small number of specimens that could not be assigned to an individual species (e.g. cattle/deer, medium sized mammal: sheep/goat/pig/dog sized). None of the caprine remains could be identified positively as either sheep or goat. Equids were the most common taxa (NISP 36) followed by sheep/goat and cattle (NISP 23 and 21 respectively) and then pig (NISP 18). All but one specimen could be assigned to a broad archaeological phase, with most attributed to the post-medieval period (NISP 94), but also a small number to the Iron Age (NISP 6).

Animal Bone Groups (ABGs)

A number of contexts containing possible ABGs were identified on site (Table E2) and overall approximately 80% of the countable specimens in the assemblage come from these contexts. The largest of these is post-medieval context **3389** (cut **3346**). This contained 44 countable specimens, mostly belonging to equid (NISP 32), but also some cattle (NISP 7) and pig (NISP 4), the final specimen was identified as Cattle/Red deer. Context information provided by the excavators states that the equid remains from this context belonged to a partially articulated individual; however, assessment of these remains has shown that there are at least two individuals represented, and it is unclear if the remains actually would have been articulated. Remains from context **3337** were considered to have been part of the same feature. This

context contains pig (NISP 13) and sheep/goat (NISP 21) remains. These remains represent at least one sheep/goat and at least two pigs.

Context **3378** (cut **3358**) also contained an ABG and was identified on site as a possible animal 'burial'. This context contained remains that look likely to have been from the hindlimbs of one cattle individual (NISP 6). Again, this feature is thought to have been post-medieval in date.

Ageing and Biometry

A number of specimens yielded ageing or biometrical information (Table E3). Eighteen specimens provided some form of ageing information, mostly from bone fusion rather than tooth eruption and wear. The most ageing information was provided by equid remains, followed by pigs and the cattle. No ageing information was yielded by any sheep/goat remains. All but one of the specimens with ageing information was attributed to the post-medieval period.

Sixteen specimens yielded biometrical information, and these were made up of a mixture of bones and teeth. Again, equids yielded the most data, followed by pigs and then cattle and sheep/goat. All biometrical data was gathered from specimens related to the post-medieval period.

Butchery, burning and gnawing

Only three specimens showed evidence of butchery burning or gnawing (Table E4). One cattle, one sheep/goat and one specimen identified as a medium sized mammal. One of these specimens was from the Iron Age and the other two from the post-medieval period.

DISCUSSION

Cattle, sheep/goat, pig and equids (the four main domesticated livestock animals in the UK) are the most common taxa found at sites with either Iron Age or post-medieval phases, so the presence of these animals at East Wideopen Farm is not unusual. What does make this assemblage stand out, however, is the prevalence of horse, which seems to be due to the number of equid remains involved in ABGs. The fact that so many of the remains from all of species are involved in possible ABGs (approximately 80%) is important, and this should be a focus of further work.

The majority of the remains, including the ABGs, are from post-medieval contexts, which indicates that they are related to activity on the farm. In this context, the presence of horse is unsurprising, as there are a number of other pieces of evidence on site or nearby, such as the presence of a gin gang (a horse driven mill), that suggest that horses would have been important working animals at the farm during the post-medieval period. The Fawdon Waggonway also ran just to the south of the site during the 19th century, which would have been used extensively by horses.

The assemblage provides some ageing information for all species except sheep/goat. Although the number of specimens providing this information is quite low, the fact that most remains are

involved in possible ABGs means that these data can be used to age articulated skeletons, including specimens that do not yield their own ageing information.

Relatively little biometrical information is available, but these data can again be used to characterise the skeletons deposited in articulation and to compare these individuals with typical populations from these time periods. Bone modification data (indicating evidence for butchery, burning and gnawing) is sparse, indicating that these remains were not extensively exposed after deposition, or heavily processed beforehand.

Animal bone assemblages from the Iron Age and particularly from rural post-medieval contexts are relatively rare in North-East England, so this is an important assemblage to analyse fully.

RECOMMENDATIONS

The following recommendations have arisen from this assessment:

- the assemblage should be combined with the faunal assemblage excavated at East Wideopen Farm during 2016 in order to increase sample size for analysis;
- there should be a particular focus on the remains belonging to Animal Bone Groups during analysis, in order to determine more clearly how many individuals are present;
- ageing and biometrical information should be incorporated into the analysis in order to characterise the individuals present and place them within their wider population context; and
- the combined assemblage from the 2016 and 2017 excavations should be compared with other faunal assemblages in the North-East region, which have Iron Age and/or post-medieval remains:

Iron Age: The small Iron Age assemblage can be put into context by looking at remains from more prominent sites in the North-East region, such as Thorpe Thewles, Teesside (Rackham 1987b) and Coxhoe, Co. Durham (Rackham 1982a).

Post-medieval: There are very few studied animal bone assemblages from rural post-medieval contexts in North-East England, so there is little directly comparable work. Some village sites, such as Cowlam (Rushe *et al*. 1988) and Lindisfarne (Allison *et al.* 1985) do have post-medieval phases, but at both of these sites stratigraphy is a problem and often medieval and post-medieval material cannot be split. The assemblage from the site of the medieval hospital at St Giles by Brompton Bridge (Stallibrass 1993a; 1993b; Stallibrass and Locker 1995) may be of more relevance, as this site was reused in the post-medieval period as a farm.

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Table E1: Numbers of Identified (countable) Specimens (NISP) from the faunal assemblage recovered at East Wideopen in 2017

Taxa		Iron age			Post-medieval			Unknown			Grand total
		Bones	Teeth	Total	Bones	Teeth	Total	Bones	Teeth	Total	
Cattle	*Bos taurus*	1	1	**2**	16*	3*	**19**			**0**	**21***
Sheep/Goat	*Ovis aries/ Capra hircus*	1		**1**	2*	20*	**22**			**0**	**23***
Pig	*Sus domesticus*			**0**	11*	6*	**17**		1	**1**	**18***
Equid	*Equus sp.*		1	**1**	30*	5*	**35**			**0**	**36***
Cattle/Red Deer	*Bos/Cervus*	1		**1**	1		**1**			**0**	2
Medium sized mammal		1		**1**			**0**			**0**	**1**
TOTAL		**4**	**2**	**6**	**60**	**34**	**94**	**0**	**1**	**1**	**101**

Table E2: Numbers of specimens from contexts containing ABGs from the faunal assemblage recovered at East Wideopen in 2017

Context	Cut	Cattle		Sheep/Goat		Pig		Equid		Total
		Bones	Teeth	Bones	Teeth	Bones	Teeth	Bones	Teeth	
3378	3358	6								**6**
3337	3336			1	20	11	2			**34**
3389	3346	7					4	30	2	**43**
TOTAL		**13**	**0**	**1**	**20**	**11**	**6**	**30**	**2**	**83**

Table E3: Numbers of ageable and measurable bones and teeth from the faunal assemblage recovered at East Wideopen in 2017

	Ageable							Measurable				
	Iron Age			Post-medieval				Iron age		Post-medieval		
Taxa	Mandible	Teeth	Bones	Mandible	Teeth	Bones	Total	Bones	Teeth	Bones	Teeth	Total
Cattle			1			3	**4**			1	0	**1**
Sheep/Goat			0			0	**0**			1	1	**2**
Pig			0		2	3	**5**				4	**4**
Equid			0			9	**9**			7	2	**9**
TOTAL	**0**	**0**	**1**	**0**	**2**	**15**	**18**	**0**	**0**	**9**	**7**	**16**

Table E4: Numbers of bones displaying butchery, burning or gnawing from the faunal assemblage recovered at East Wideopen in 2017

	Butchery/burning/gnawing						
	Iron Age			Post-medieval			
Taxa	Butchery	Burning	Gnawing	Butchery	Burning	Gnawing	Total
Cattle				1			**1**
Sheep/Goat		1					**1**
Medium mammal			1				**1**
Total	**0**	**1**	**1**	**1**	**0**	**0**	**3**

APPENDIX F

POST-MEDIEVAL POTTERY REPORT

Charlotte Britton

INTRODUCTION

A total of 389 sherds (10837.7g) of post-medieval pottery were recovered from the 2016-2017 excavations at East Wideopen Farm, Wideopen, North Tyneside. All the pottery recovered was organised by stratified deposit (context) and quantified by count and weight (Table F1). This report presents the results of the assessment of that material examined in accordance with A Standard for Pottery Studies in Archaeology (Barclay *et al.* 2016).

Table F1: Pottery sherds by count and weight

Context	Count	Weight (g)
3027	2	10.1
3133	1	29.2
3347	2	6.2
3696	69	2685.4
3697	3	19.8
3741	312	8087
Total	**389**	**10837.7**

METHOD

All the material recovered was assessed by eye, and wares and chronology were identified (Table F2). Vessel form, decoration and producer were also documented where possible.

RESULTS

The assemblage dates between the 17th-19th centuries and was classified as domestic ware, commenting on the nature of the site. Table wares were primarily represented, and both the wares and forms identified are highly characteristic of the period. The wares present included Black glazed ware, Black glazed earthenware, Midlands Blackware, Mochaware, Spongeware, Stoneware, Transferware, Whiteware (including Edged wares), and Yellow glazed earthenware. Forms identified are typical of this period, including flatwares such as plates and saucers, and hollowares including bottles, bowls, cups, dishes, jugs, mugs and a possible pitcher. All of the pottery present was British in origin, and the majority was most likely produced within the local region.

DISCUSSION

Spongeware, in particular, was heavily represented within the assemblage and one sherd, from **3741**, showed a maker's stamp depicting an anchor and displaying the word 'London' above it. J. Carr & Co based in North Shields produced Spongeware throughout the 19th century and displayed such an anchor as one of their maker's marks (ThePotteries.org, www.thepotteries.org). J. Carr & Co also produced bricks during this period (Cranston 2014), a

fragment of which was found within the same context as this example. It is therefore most likely that the Spongeware recovered within this assemblage was produced locally by this company. Moreover, by the middle of the 19th century, J. Carr & Co had started to produce a number of different wares, including transferwares, black glazed wares and earthenwares (Cranston 2014). It is probable that the majority of the pottery recovered, including the large assortment of Yellow glazed earthenware from **3696** and **3741** was also produced locally, specifically by J. Carr & Co, in North Shields. Although most of the pottery recovered was produced locally, a few examples show evidence of having been produced in the south of England. For instance, two sherds of Midland Blackware were recovered from **3696** and **3697**. This ware was produced in the Midlands region during the late 17th and 18th century and was distributed throughout the UK. It was common throughout the country during this period. In addition, the majority of the transferware recovered showed the 'Willow' pattern which was highly popular during the 19th century and, as such, was produced by many potters within the UK. One sherd, however, recovered from **3741**, had a maker's mark displaying the words 'Stone Ware' within a hand painted diamond. It is possible this stamp pertains to the T Dimmock & Co potters, based in Hanley, Shelton, Staffordshire (ThePotteries.org, www.thepotteries.org). This company operated between 1822 and 1904 and distributed ceramics all over the country. These examples therefore indicate that a small proportion of the pottery recovered at East Wideopen Farm 2017, was most likely produced further afield, in the Midlands region.

The majority of the post-medieval pottery recovered was found within contexts **3696** and **3741**. Both these deposits were found associated with a sunken barrel at the eastern end of the site. The wares recovered all date from the late 18th and 19th century, and so it is possible this area therefore constituted a 19th century refuse dump.

STATMENT OF POTENTIAL AND RECOMMENDATIONS

All pottery recovered dates between 17th-19th centuries and is in very good condition. Those with stamps should be retained and deposited with the archive, however, as the remaining sherds are highly characteristic of the period and region, they are recommended for discard.

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Table 2: Wares present in each context with date range, count and weight

Context		3027		3133		3347		3696		3697		3741		Total Count	Total Weight
Wares	Date	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight		
Midlands Blackware	17th - 18th century							1	9.7	1	11.1			2	20.8
Black glazed ware	18th - 19th century							1	10.6					1	10.6
Brown glazed earthernware	18th - 19th century							2	93.7					2	93.7
Yellow glazed earthenware	18th - 19th century			1	29.2			18	1331.3			99	5517	118	6877.9
Edged Ware	19th century							7	212.6			1	0.8	8	213.4
Mochaware	19th century							11	187.8					11	187.8
Spongeware	19th century							19	427.4			129	1531	148	1958
Stoneware	18th century							2	173.8			1	74.7	3	248.5
Transferware	19th century					2	6.2	2	36.1			43	543.2	47	585.5
Whiteware	19th century							6	202.4	2	8.7	39	420.3	47	631.4
Whiteware?	19th century	2	10.1											2	10.1
Total		**2**	**10.1**	**1**	**29.2**	**2**	**6.2**	**69**	**2685.4**	**3**	**19.8**	**312**	**8087**	**389**	**10837.7**

APPENDIX G

METAL PRODUCTION RESIDUES REPORT

Dr R. Mackenzie

INTRODUCTION

The following report is an assessment of potential metallurgical and/or other pyrotechnic production residues recovered during archaeological fieldwork at East Wideopen Farm 2017, Tyne and Wear.

METHODOLOGY

The assemblage had previously been separated into three broad categories of material and catalogued by staff at Northern Archaeological Associates.

The aims of this assessment have been to examine all of the material in the assemblage to determine its potential research value, and if possible, to provide an interpretation of the assemblage. All of the material has been examined in detail visually and, where necessary, tested for magnetic response.

SUMMARY OF RESULTS OF ASSESSMENT

The material in the assemblage that had provisionally been catalogued as 'fuel' predominantly consists of small fragments of coal that are each less than 50g in weight and/or less than 4cm^3. It is estimated that there are well over 1500 individual fragments of coal in the assemblage. A small number of fragments (<30) are possibly small fragments of coal derived fuel ash slag, also known as clinker.

The material provisionally catalogued as 'hammerscale' predominantly consists of fine (i.e. <3mm) fragments of naturally magnetic geological matter, fine fragments of clinker and small shale-like fragments of coal. No true flake hammerscale was present in the assemblage, although there were trace amounts of spheroidal hammerslag in samples from five contexts, and of these, only one context produced more than one or two pieces. Context **3439** produced 12 pieces of spheroidal hammerslag, none of which were larger than 3mm diameter.

The material that had been provisionally catalogued as industrial waste has been identified as a mixture of natural geological material and coal derived fuel ash slag (clinker).

The 'fired clay' category of material appears to consist of fragments of ceramic building material, possibly from clay roof tiles or handmade red bricks. There are no identifiable fragments of refractory type brick that is more commonly found in high temperature industrial structures.

DISCUSSION AND INTERPRETATION OF RESULTS

The only material in the assemblage that can be directly attributed to a specific manufacturing process is the spheroidal hammerslag, which is a common indicator of iron smithing. However, almost all of the spheroidal hammerslag was recovered from the secondary fills of ditches or pits; this, together with the very small amounts found, make it impossible to link the material to more specific iron smithing activities at the site.

The most abundant material type in the assemblage are fragments of coal that presumably originated from the former Wideopen colliery. Apart from a handful of larger pieces, all of the fragments of coal in the assemblage are very small, and they are typical of the left over remnants of coal after the larger pieces had been screened out at the colliery. The small fragments of coal and coal dust present in the assemblage are a type of coal that was once commonly referred to as 'slack', and this was normally the cheapest type of coal available. Presumably, the low value of slack is what makes it a relatively common find on or in the immediate area of former collieries.

The former Wideopen colliery and its associated coal fired engines/boilers also seems a likely potential source of much of the fuel ash slag in the assemblage.

The fragments of fired clay appear to be pieces of ceramic building materials, possibly handmade bricks or roofing tiles. Given the other materials present in the assemblage, it seems possible that these fragments also originated from buildings on the former colliery site.

RECOMMENDATIONS

The material in the assemblage is of very limited research value and offers no further scope for further analysis. It is recommended that the assemblage is disposed of.

APPENDIX H

FINDS ASSESSMENT REPORT

Elizabeth M. Foulds

INTRODUCTION

This report discusses the finds recovered from the archaeological excavations at East Wideopen Farm 2017, Wideopen, North Tyneside (NGR NZ2452 7270). Where identifiable, the finds primarily represented post-medieval/modern activity.

METHOD

All finds were recorded on 7 October 2017 in a Microsoft Access database. The specialist finds recording and reporting was completed in accordance with the national finds standard (English Heritage 2008, CIfA 2014) were possible.

A list of data fields used during the recording process as appropriate is given in Table H1. This file is available with the site archive.

Table H1: description of data fields used to record finds.

Field	Data Type	Description
ID	Number	Unique identifying number
Project	Number	NAA project number
Context	Number	Context number
Material	Text	Material type
ObjectType	Text	Simple object description if relevant
Cat_Description	Text	Full description of the find, text used in finds catalogue.
Cat_Dimensions	Text	Full measurements of the find, text used in finds catalogue.
Cat_Period	Text	Period category of the find, text used in finds catalogue
Count	Number	Full count of finds the record refers to
Weight	Number	Weight of find in grams
KeepDiscard	Text	Indicates if the find should be kept for archive or discarded
Xray	Text	X-ray number where relevant
ConservRecommended	Text	Indicates whether a find should be conserved either for further analysis to make it stable for archive
NeedsIllustration	Yes/No	Indicates finds that should be illustrated for the report
NeedsPhotograph	Yes/No	Indicates finds that should be photographed for the report

RESULTS

The finds consisted of glass and iron artefacts that were primarily indicative of post-medieval date (Table H2).

Table H2: summary of finds by material and context

Material	Post-medieval	Undiagnostic	Total
Glass	11	7	18
Iron	-	16	16
Total	**11**	**23**	**34**

DISCUSSION

The finds primarily represent post-medieval activity at the site and reflect the farm and colliery activity at the site.

RECOMMENDATIONS

A combined report with the 2015 excavations should be produced to bring together all the evidence from this farmhouse. Further analysis may help to refine the date of the different activities at the site.

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CATALOGUE

Context 3021: Secondary Fill of posthole 3019

Two thin fragments of iron wire from environmental sample AA. 0.9g, undiagnostic.

Context 3027: Primary Fill of drain 3026

Eight translucent green glass vessel fragments. Primarily body sherds, but included two rim sherds. Largest rim sherd represents 15% of a vessel approximately 130mm in diameter. Medium weathering, all sherds covered in a thin iridescent crust. 73.7g, post-medieval.

Fragment of window glass, with medium iridescent weathered crust. 4.6g, undiagnostic.

Long square sectioned iron nail with round head. L: 117.9mm, 28g, undiagnostic.

Context 3133: Fill of possible ditch 3132

Light translucent green glass vessel body sherd. Light iridescence. 6.8g, undiagnostic.

Context 3176: Fill of ditch terminus 3175

Pale translucent green glass fragment recovered from sampling. Sample AA. 0g, undiagnostic.

Context 3221: Fill of gully 3219

Small scrap of iron rod from environmental sample AA. 0.2g, undiagnostic.

Context 3695: Remains of Wooden Barrel

Fragments of iron strip approximately 35mm wide and 3mm thick. 78g, undiagnostic.

Context 3696: Primary Fill of wooden barrel (3695)

Hand blown glass bottles represented by four bottle bases, two glass bottle necks with intact mouths, and an additional three body sherds in the same glass colour. 1338.4g, Post-medieval

Colourless glass vessel body sherd. Unweathered. 13.3g, undiagnostic

Approximately 35% of a colourless rim from a glass bottle, possibly hand finished rather than machine finished. Mouth diameter approximately 20mm. 3.6g, post-medieval.

Eight colourless (with green tinge) glass vessel fragments from an octagonal sauce (or similar) bottle. Reconstructable fragments stand 70mm tall. Body fragments with the shoulder curve present, but cannot reconstruct with base sherds. The base of the bottle measured approximately 46mm x 46mm and has pontil marks from manufacture. 88.5g, post-medieval.

Context 3741: High pottery waste content dump with barrel [3719]

Neck and rim of a dark olive green bottle in three pieces. Mould line visible on neck, but has been subsequently reheated. Mouth has a hand finished outer lip. 75.4g, post-medieval.

Colourless glass vessel body sherd with mould line. 2.3g, post-medieval.

Dark green translucent glass vessel body sherd. Unweathered. 2.6g, post-medieval.

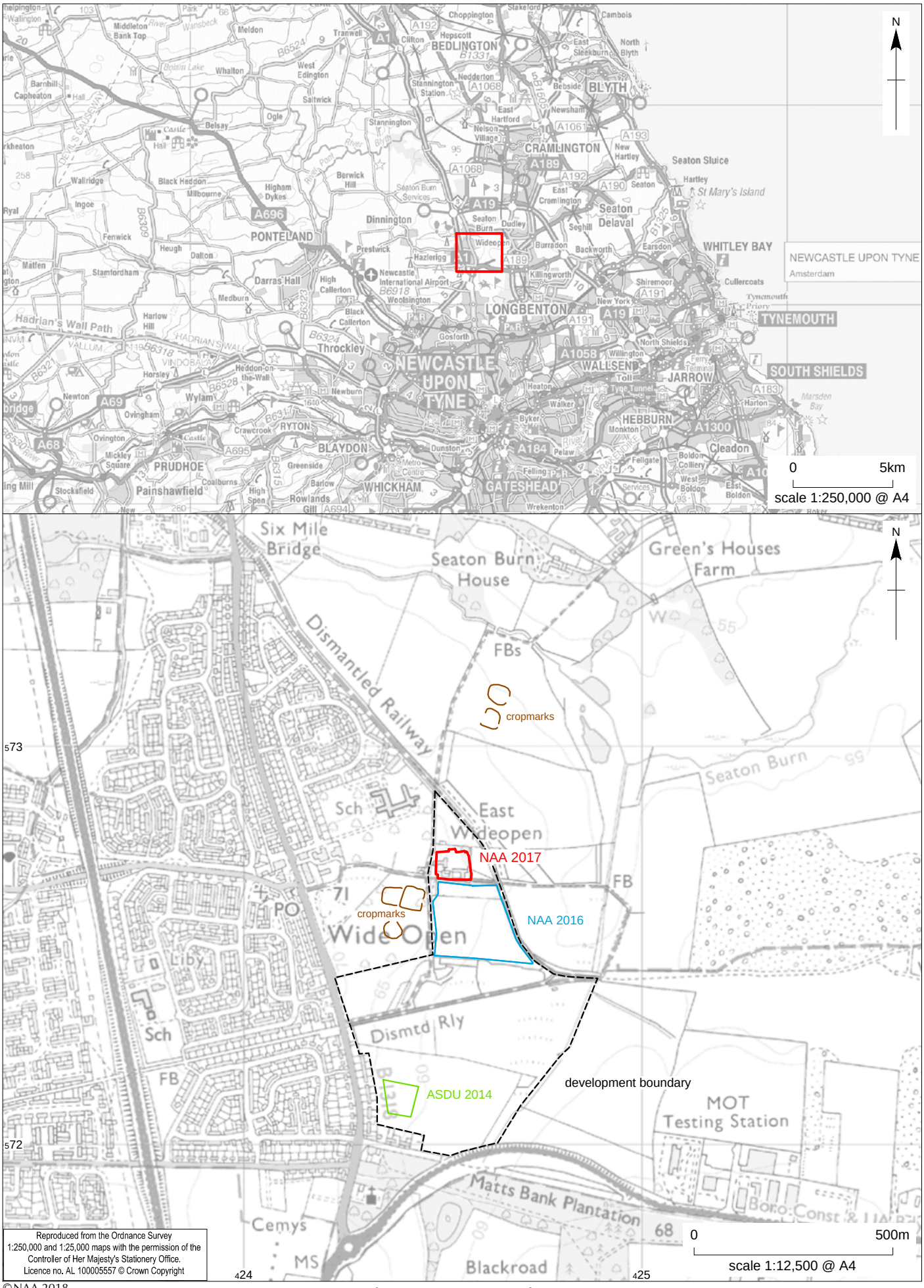
Light olive green translucent glass vessel body sherd. Unweathered. 1.9g, post-medieval.

Colourless fragment of window glass. 0.8g, undiagnostic.

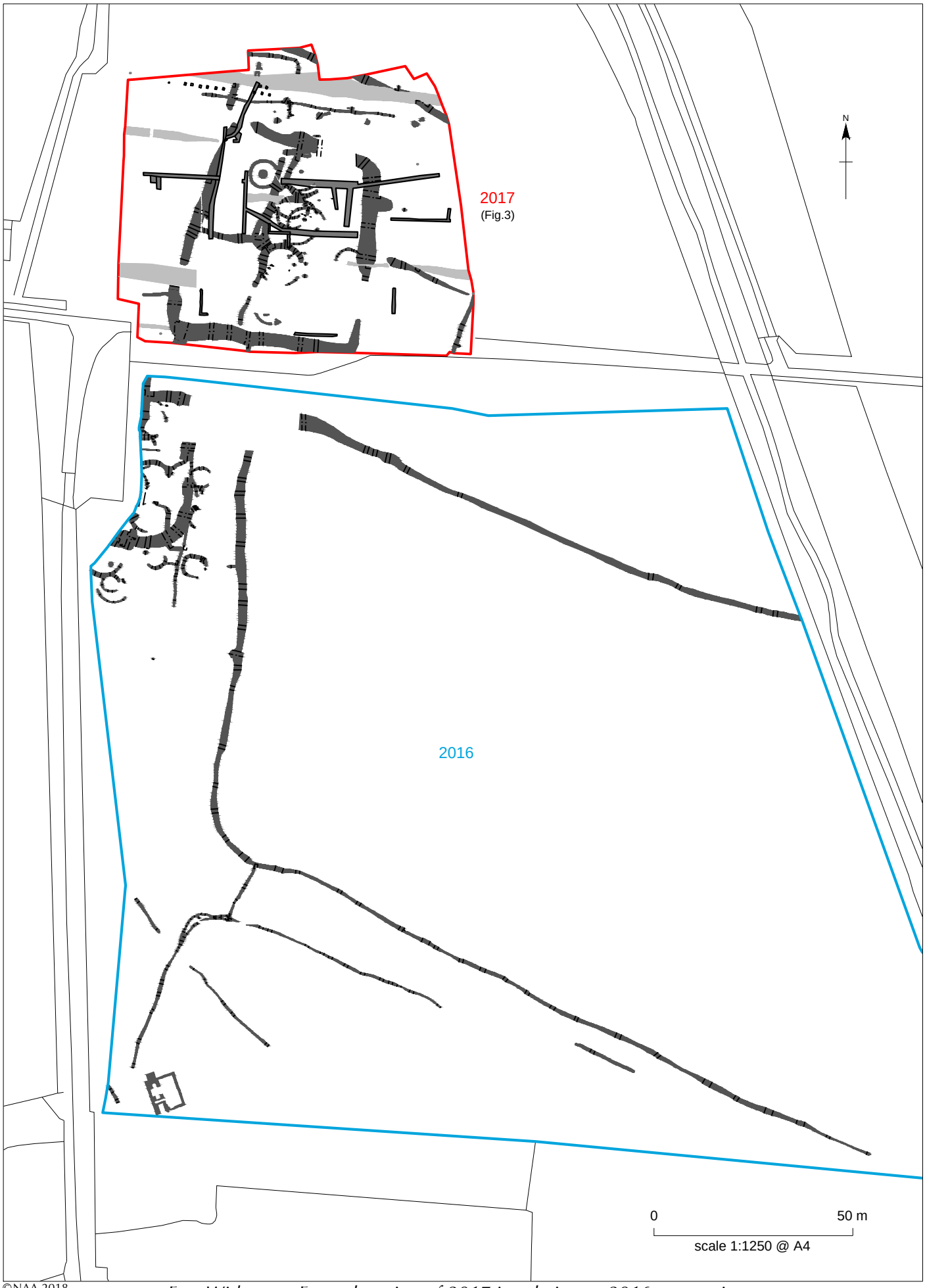
Pale translucent green window glass fragment. 5.4g, undiagnostic.

Context 3747: Fill of ditch 3746

Translucent medium olive green glass vessel fragment. Light iridescent crust. 6.3g, undiagnostic.



East Wideopen Farm: site location *Figure 1*



East Wideopen Farm: location of 2017 in relation to 2016 excavations

Figure 2

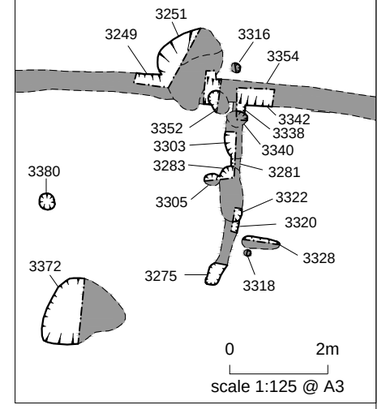
East Wideopen Farm: results of 2017 excavations, group numbers

Figure 3

Phase 2

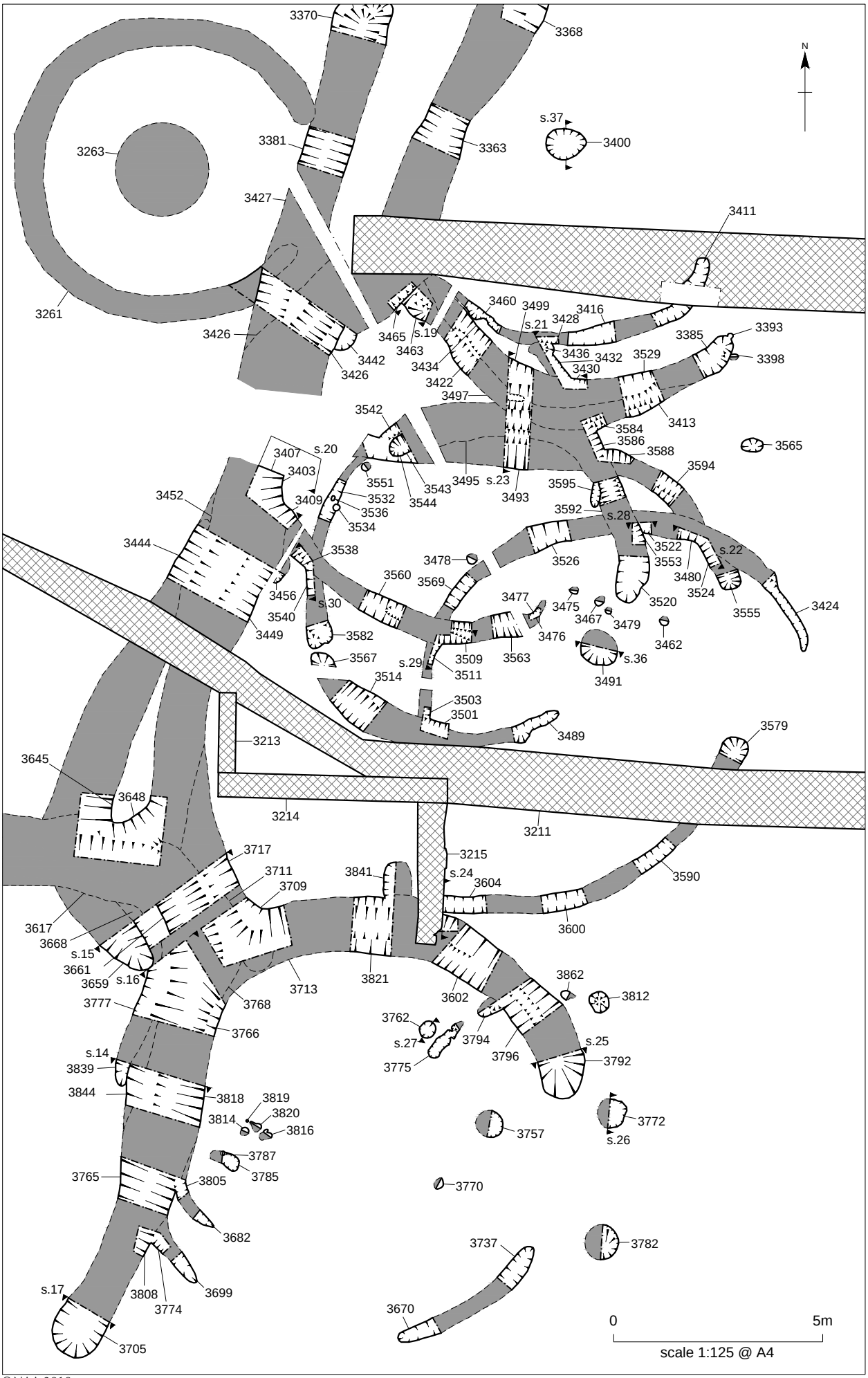
post-med walls

Detail



East Wideopen Farm: results of 2017 excavations, detailed view

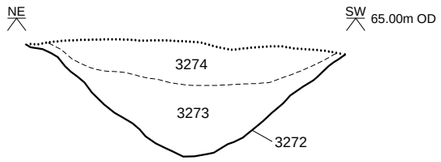
Figure 4



East Wideopen Farm: results of 2017 excavations, detail of ring-gully cluster

Figure 5

section 1



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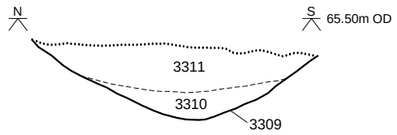
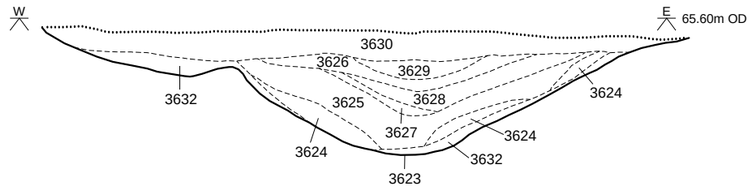


section 3

section 4



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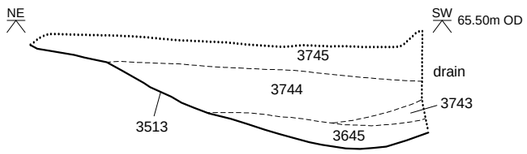

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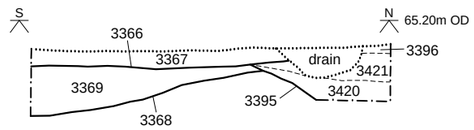

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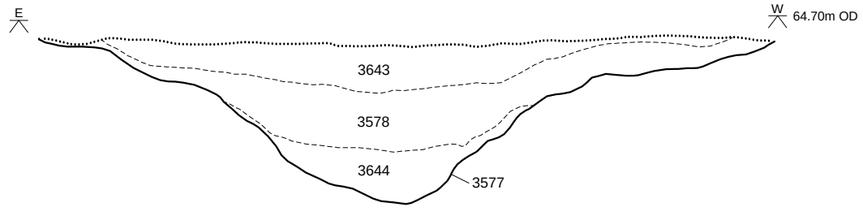

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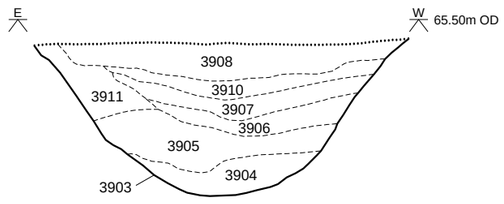

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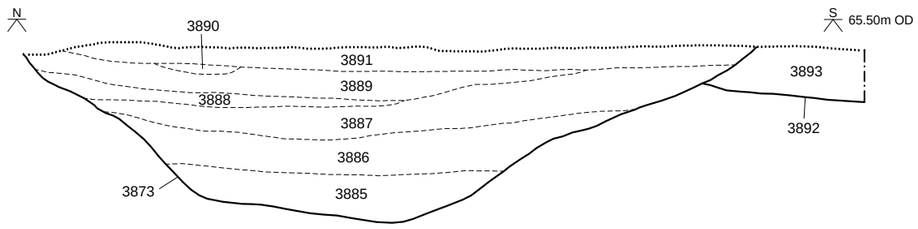

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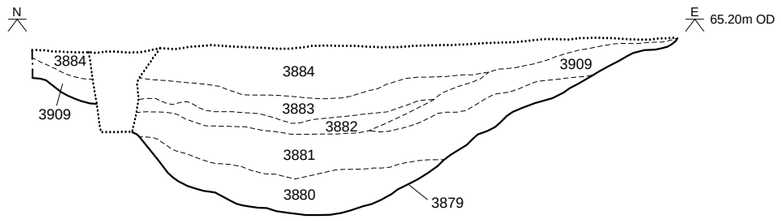

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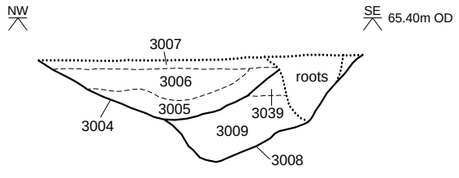

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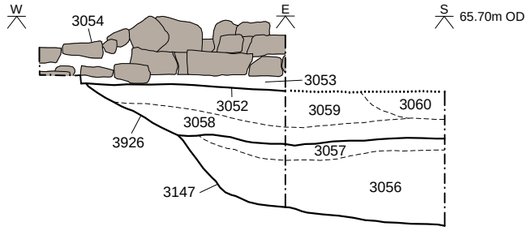

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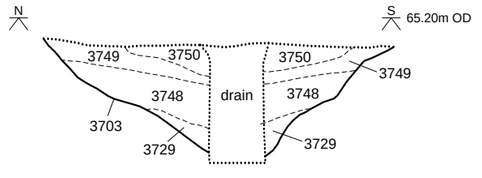

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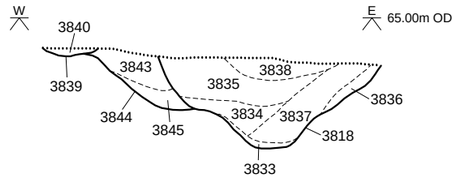

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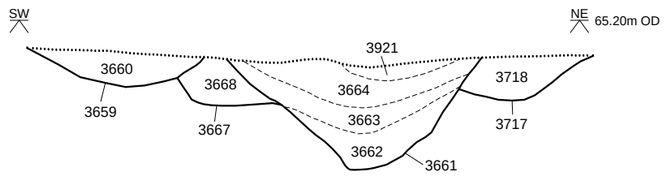
East Wideopen Farm: sections 1 to 14

Figure 6

section 15



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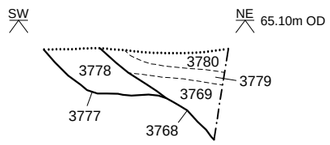

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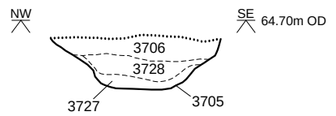

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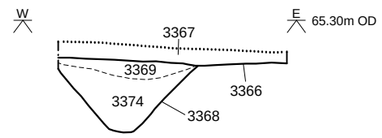

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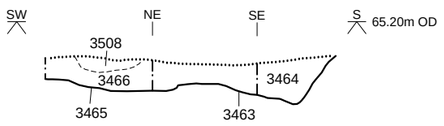

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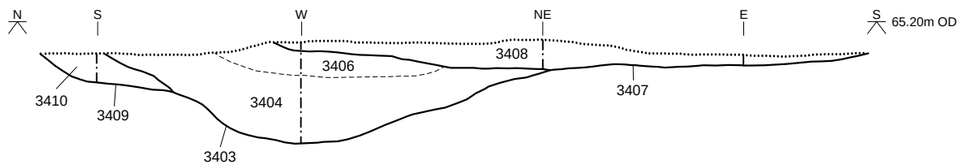

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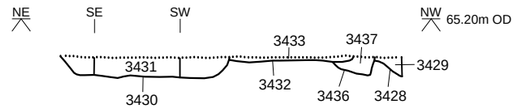

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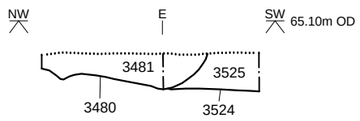

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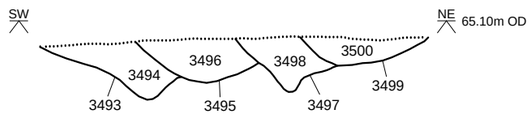

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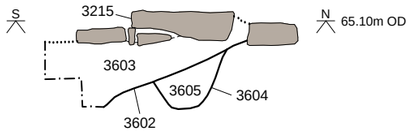

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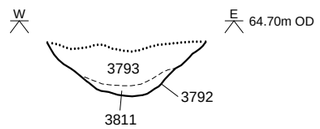

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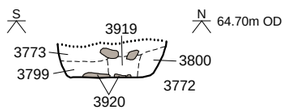

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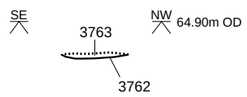

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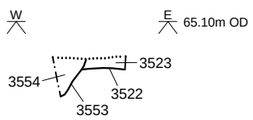

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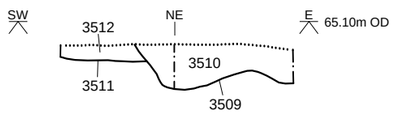

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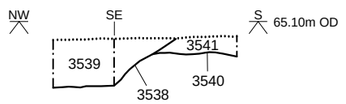

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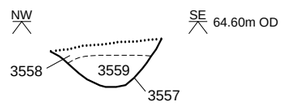

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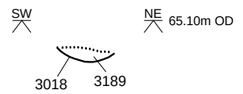

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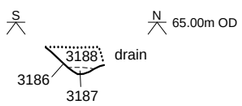

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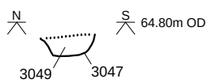

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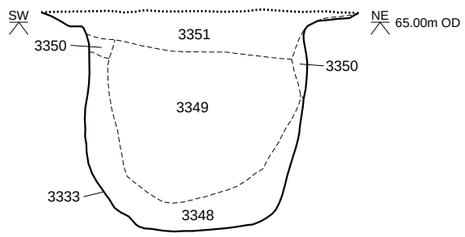

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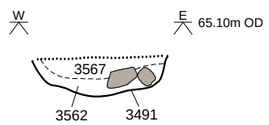

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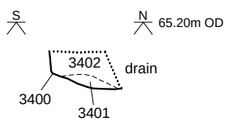

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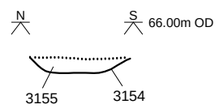

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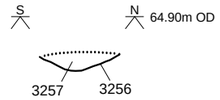

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East Wideopen Farm: sections 15 to 39

Figure 7