Viking Link, Lincolnshire Zones 2 and 3

Post-excavation Assessment Volume 1:
Main Text and Figures

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Summary

Wessex Archaeology was commissioned by Balfour Beatty, on behalf of National Grid Viking Link Ltd, to undertake archaeological investigations along the route of the Viking Link Interconnector Onshore Scheme in Lincolnshire. The Interconnector is a 1400 MW high voltage electricity cable and associated infrastructure that connects the electricity grids of the UK and Denmark. The 67 km–long onshore route has been divided into three zones: Zone 1 encompasses the Lincolnshire coastal marsh and plain, Zone 2 crosses the southern part of the Lincolnshire Wolds, and Zone 3 equates to the fenland portion of the scheme.

This post-excavation assessment summarises the results from the 38 set-piece excavation areas and two strip and map areas investigated within Zones 2 and 3. This document also provides a brief summary of the results of the evaluation trenching in Zone 2 which, unlike the evaluation trenching results in Zone 3, have not previously been disseminated. A companion document covers the corresponding archaeological investigations within Zone 1 (Wessex Archaeology 2023a).

Within Zones 2 and 3, archaeological excavations took place between January and November 2021, and followed a phased programme of preliminary work including geophysical surveys and evaluation trenching. Dated remains from the archaeological excavations span the Mesolithic to modern periods; the majority of the evidence is Romano-British in date. Highlights include the identification of a focus of activity on Langton Hill, including a wold-top settlement of Romano-British date, and a nearby Anglo-Saxon cemetery that re-used the site of a Bronze Age barrow. Sites were numerous in the valley of the River Lymn and reveal it as intensively settled and exploited across a range of periods. Relatively few remains were identified in the fens, but towards the southern end of the scheme, evidence of Romano-British activity along a 2 km-stretch of the route relate to farming, saltmaking and pottery production. Overall, most sites were overwhelmingly rural and agrarian in nature, characterised by ditched field boundaries and traces of (often later) ridge-and-furrow cultivation. Whilst the majority of the excavated sites were small (the average site area was 0.27 hectares and fewer than 150 contexts were issued at almost three-quarters of them), the results improve the understanding of the distribution and character of past activity within this part of Lincolnshire, and are of regional significance.

Almost 350 kg of finds were recovered from the excavations in Zones 2 and 3; the majority of the artefacts are of Romano-British date, but the assemblage also contains a range of ‘exotic’ materials and personal items found as grave goods in the Anglo-Saxon cemetery. Understanding of the excavated sites and their contemporary landscapes is further enhanced by the 557 environmental samples taken from a range features, including cremation graves, crop-dryers, ditches, pits and ponds. This document presents an initial assessment of these artefactual and environmental assemblages from Zones 2–3.

A third document in this series (Wessex Archaeology 2023b) considers how the results of the investigations within Zones 1–3 combined contribute to the project's original archaeological research aims, states the potential of the archive overall to contribute to further knowledge creation, and sets out an Updated Project Design outlining proposed steps to analyse the excavated material and disseminate the results, leading to the final deposition of the archive.

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Last but not least, thanks are offered to Peter Bryant from National Grid, who via Balfour Beatty, commissioned the work.

Fieldwork staff

The fieldwork was directed by Emily Eastwood and supervised by Jonathan Buttery, Hannah Dabill, Viktoría Halldórsdóttir, John Hirst, Jack Peverall and Luke Roberts. It was carried out by the following staff of Wessex Archaeology:

Justin Ayres, Lluis Bermudo-Ferrer, Jamal Bingham, Stephen Broomhead, Callum Bruce, Ged Callaghan, Michael Clark, Finn Cresswell, Chloe Deeks, Justyna Dekiert, Krista Depaulo, Jack Dowling, Aaron Friar, Frances Garnett, Otis Gilbert, Rosie Goodman, Kai Gopsill, Elliot Gribbin, James Howe, Owen Jenkins, Matt Kendall, Ryan Lynch, Philipp Maier, Kieran Mason, Elisha Meadows, Emma Metcalfe, Tom Moreland, Jack Needham, Christopher Oakes, Euan O'Neill, Isaac Penaluna, Charlotte Porter, Jamie Porter, Jasmine Porter, Marijane Porter, Patricia Readom, Krzysztof Sendek, Nate Shepherd, Isabelle Sherriff, Albert Smith, Richard Smith, Elizabeth Statham, Aimee Steele, Lenore Thompson, Matt Tooke, Josh Toulson, Chris Warburton, Daniel Webster and Stuart Weston.

Viking Link, Lincolnshire, Zones 2 and 3

Post-excavation Assessment

Volume 1: Main Text and Figures

1 INTRODUCTION

1.1 Project and planning background

1.1.1 Wessex Archaeology was commissioned by Balfour Beatty, on behalf of National Grid UK, to undertake archaeological mitigation works comprising the excavation of 38 set-piece excavation (SPE) areas and two Strip and Map (SM) areas totalling 11 hectares (ha) located along the 67 km route of the Viking Link Interconnector Onshore Scheme, between Haugh and Bicker Fen in Lincolnshire (**Fig. 1**).

1.1.2 The Interconnector is a 1400 MW high voltage direct current (DC) electricity cable and associated infrastructure connecting the electricity grids of the UK and Denmark.

1.1.3 Formal notification for the Viking Link Interconnector Cable was sent to the Marine Management Organization (MMO) from National Grid Viking Link Limited (NGVL) on 27 July 2016. The MMO accepted the project into the planning process by letter on the 27 October 2016 and advised consultation with appropriate authorities including the Local Planning Authorities.

1.1.4 Planning applications were submitted by NVGL to the four local planning authorities (Boston Borough Council – ref B/17/0340; North Kesteven District Council – ref 17/1200/FUL; South Holland District Council – ref H04-0823-17, and East Lindsey District Council – ref N/110/01549/17) in August 2017.

1.1.5 The four local planning authorities granted the planning application, subject to conditions, on 12 December 2018. The following conditions relate to archaeology:

> *8) No phase of the development (other than survey work) shall commence until a written scheme of archaeological investigation for that phase has been submitted to and approved by the Local Planning Authority. The scheme shall include:*
>
> *i) an assessment of archaeological significance and a proposed mitigation strategy;*
>
> *ii) a methodology and timetable of site investigation and recording;*
>
> *iii) provision for site analysis and the submission of preliminary and final reports to the Local Planning Authority, and to the Historic Environment Record Officer at Lincolnshire County Council;*
>
> *iv) provision for publication and dissemination of the analysis and records;*
>
> *v) provision for archive deposition;*
>
> *vi) nomination of a competent person or organization to undertake the work;*
>
> *vii) a programme of works; and*

viii) a written procedure to notify and allow for monitoring by the Local Planning Authority.

Thereafter, the archaeological site work shall be carried out, in full accordance with the details thus approved.

1.1.6 In accordance with the above condition, a programme of archaeological works, including production of desk-based assessments, geophysical surveys, a palaeoenvironmental evaluation and archaeological trial trenching (see section 2, below), was carried out, leading to the archaeological mitigation excavations that form the primary subject of this report.

1.1.7 The archaeological mitigation works were undertaken in accordance with the written schemes of investigation (WSI) that were relevant to them. The WSIs detailed the aims, methodologies and standards to be employed, for both the fieldwork and the post-excavation work (Wessex Archaeology 2021a and 2021b). An archaeological advisor from East Lindsey and South Holland District Councils approved the WSI, on behalf of the Local Planning Authorities (LPA), prior to fieldwork commencing. The archaeological mitigation excavations were undertaken between January and November 2021.

1.2 Scope of the report

1.2.1 The purpose of this report is to provide the provisional results of the archaeological mitigation excavations in Zones 2 and 3, and the preceding evaluation within Zone 2, and assess the artefactual and environmental assemblages from these investigations. A companion Updated Project Design document assesses the potential of the results to address the research aims outlined in the WSIs (Wessex Archaeology 2023b). Where appropriate, the Updated Project Design includes recommendations for a programme of further analysis, outlining the resources needed to achieve the aims (including the revised research aims arising from this assessment), leading to dissemination of the archaeological results via publication and the curation of the archive.

1.3 Location, topography and geology

1.3.1 The excavation areas lie within Zones 2 and 3 of the Viking Link Interconnector Onshore Scheme, which is located between Haugh (NGR 542328, 375827) and Bicker Fen (NGR 518900, 337286) in south-eastern Lincolnshire (Fig. 1). The following section is summarised from the WSIs (Wessex Archaeology 2021a and 2021b).

Zone 2

1.3.2 Zone 2 is located between Haugh (NGR 542328, 375827) and Hagnaby Lock (NGR 533814 360266) and has been divided into three sections: 2a – Haugh to Dalby, 2b – Dalby to West Keal and 2c – West Keal to Hagnaby Lock (Fig. 2) and reaches maximum height of 50 m OD, although much of the zone is considerably below this elevation.

1.3.3 The Haugh to Dalby section (2a) rises from the coastal plain, running obliquely up the west-facing chalk slope of the Wolds, and for the most part traverses the sides of the characteristic chalkland dry valleys. In this section, settlements are small and often sited along the base of dry river valleys. Prehistoric earthworks are well-known as are deserted medieval settlements, moated sites and a relative high density of country houses and small parkland. Although modern farming has had an impact, such as removing hedgerows and enlarging fields, some of the fossilized enclosure and 19th-century rectangular fields are still present.

1.3.4 The Dalby to West Keal section (2b) passes onto older bedrock. To the east of Sausthorpe, the route crosses the River Lymn, which has alluvial deposits in the base of its valley. This section is characterised by generally small, nucleated settlements on the western edge of the Wolds. Deserted and shrunken medieval settlements are known, as are field patterns whose origins derive from medieval strip farming.

1.3.5 Within the West Keal to Hagnaby Lock section (2c), the chalk bedrock is capped by glacial 'till' (boulder clay) deposits which give the south-eastern Wolds their characteristic rolling form. The fertile soils formed over this till are ideal for arable cultivation. This area contains both scattered nucleated and linear settlements occupying the slightly higher ground, particularly on the ridges near Stickney and Sibsey.

Zone 3

1.3.1 Zone 3 is located between Hagnaby Lock (NGR 533814 360266) and Bicker Fen (518444 337388) in Lincolnshire. It comprises low-lying fenland rising only infrequently above 3 m OD and in parts falling below sea level. Extensive peat fen occurs along the landward edge of the basin of the Lincolnshire fenland and around the River Witham (Boutwood 1998, 26). The landscape was extensively drained from the early 17th century onwards and is occupied by arable land with dark friable peat soils. These have been intensively farmed since their drainage, with the fenland forming 'one of the richest agricultural areas of Lincolnshire' (*ibid*., 26). Woodland cover is scarce, and hedgerows are almost entirely absent. The landscape is divided by straight drainage channels ultimately discharging into the canalised River Witham. Roads and other communications typically follow the pattern of the drains.

1.3.2 A common landscape feature are roddons (or rodhams) which are the silted remains of former channels around which the drained former peatlands have shrunk, leaving the roddons as linear ridges (Fowler 1932). These elevated areas of land became available for human activity, including settlement, as the sea retreated in the Late Iron Age and Romano-British periods, and so are considered to have a high archaeological potential (Network Archaeology Ltd 2019, 35).

1.3.3 Within Zone 3, the underlying solid geology is mapped as Jurassic mudstones and clays of Oxford and West Walton, Ampthill and Kimmeridge clay formations. These are overlain by post-glacial alluvium and freshwater clays (British Geological Survey 2022).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Previous works related to the development

Environmental Statement ES-4-B.08 (2017)

2.1.1 The Environmental Statement was supported by a number of technical appendices including:

- a desk-based assessment (DBA) (Arcadis Consulting 2017a), which indicated that there was an overall medium potential for archaeological remains to be present. This included those from the prehistoric period, the Romano-British period where the scheme ran close to East Keal, and for medieval remains associated with deserted settlements and agricultural practices;

- an aerial photograph and LiDAR assessment (Trent & Peak Archaeology 2017), which indicated a number of cropmarks and potential earthworks consistent with extensive archaeological sites near Donington, Bicker Fen, Harrington and Raithby;

- geophysical surveys (Headland Archaeology 2017a–b, Sumo 2017 – see below);
- a subsequent excavation at the converter site (Arcadis Consulting 2017a), which recorded a series of Romano-British ditches that broadly dated to the 2nd and 3rd century AD.

Ring Holt barrow: additional surveys (2017–2018)

2.1.2 A Supplementary Environmental Information Report (SEIR) for East Lindsey District Council (Arcadis Consulting 2017b) was prepared with particular focus on the scheduled barrow, including updated walkover information and additional geophysical survey. A Technical Paper was produced focussed on the barrow (National Grid Viking Link 2017), as was an additional review of the DBA data in East Lindsey undertaken as a Planning Appeal Core Document (Aecom 2018).

Updated DBA (2019)

2.1.3 An updated DBA (Network Archaeology Ltd 2019) collated all previous archaeological work on the cable route and incorporated new and updated data sources (e.g., Wolds Long Barrow survey, UXO Assessment, Portable Antiquities Scheme review) and superseded the earlier Arcadis Consulting assessment (2017a). The updated DBA identified 179 heritage assets that were wholly or partly within the scheme's Planning Application Area, and a further 270 within 250 m of the Planning Application Area.

Paleoenvironmental evaluation (2019)

2.1.4 Environmental Archaeology Consultancy undertook an evaluation to better understand the potential for buried archaeological and paleoenvironmental deposits within the cable corridor (Environmental Archaeology Consultancy 2020). Within Zone 2, 15 hand-dug auger holes were excavated. Colluvial deposits were noted across Zone 2, though archaeological evidence was only obtained from one core sample. The deposits were identified to have little paleoenvironmental potential. Within Zone 3, 29 hand-dug auger holes were excavated.

2.1.5 The survey concluded that most of the Wolds appeared to have deposits of very little palaeoenvironmental potential except for the floodplain of the River Lymn. In the southern fenland area of the cable route (Zone 3), a higher palaeoenvironmental potential was identified, generally comprising a buried soil (found between -0.24 m and -4.8 m OD) with an overlying peat or organic silt deposit (less than 0.3 m thick) and a subsequent series of brackish and marine sediments. Roddons were also identified, and flagged for their potential for archaeological remains dating to the later Iron Age and subsequent periods.

Geophysical survey (2017–2020)

2.1.6 Geophysical surveys of the cable corridor and potential convertor station sites at its southern terminal were carried out by various contractors over a four-year period as areas became accessible for survey and route alignment options were explored (Headland Archaeology 2017a, 2017b and 2019; Magnitude Surveys 2020; Sumo Surveys 2017).

2.1.7 The surveys primarily identified agricultural features, with former field boundaries, former ponds, cultivation effects and drainage networks commonly encountered along the entire scheme. Demolition rubble from former structures was also detected in a handful of locations. The majority of these results were ascribed to relatively recent activity, although numerous areas of archaeological remains were identified. Many of these were corroborated by other data sources such as aerial photographs, but there was a number of locations where archaeological evidence had not previously been identified. The

archaeological results typically comprised double-ditched and partial enclosures and broad curvilinear anomalies. However, the narrowness of the survey corridor and the similarity of deposits detected in both the natural and possible archaeological features often hindered confident interpretation. Geological and pedalogical anomalies were also common throughout all survey areas.

Archaeological evaluation (2020–2021)

Zone 2

2.1.8 A total of 234 evaluation trenches were excavated within Zone 2 of the Viking Link cable route – 206 by Network Archaeology Ltd and the remaining 28 by Wessex Archaeology. None of the trenches were formally reported on prior to the mitigation excavations, with summaries of the results appearing in a series of completion statements (Network Archaeology Ltd 2020a–e; Wessex Archaeology 2020a–d).

2.1.9 The results of the evaluation trenching within Zone 2 are summarised in section 5 below (Figs 4–29), and artefacts and environmental samples collected during the Zone 2 evaluation works have been assessed alongside the assemblages from the mitigation areas, with the results presented in sections 7 and 8 below.

2.1.10 In brief, the evaluation trenching in Zone 2 was able to identify several areas of archaeological interest, both in areas that had returned positive results when subjected to geophysical survey and within those that had not. Linear features such as ditches, gullies and furrows dominated the findings, with the remains being chiefly agricultural in nature. Artefacts spanned the prehistoric to modern periods, with the ceramic assemblage largely consisting of Romano-British and medieval wares, with lesser amounts of prehistoric and post-medieval/modern pottery.

Zone 3

2.1.11 An archaeological evaluation comprising the excavation of 194 trenches was completed by Wessex Archaeology during the winter of 2020/2021 (Wessex Archaeology 2021c). Three foci of Romano-British activity were identified, one including evidence for a possible nearby pottery production centre (close to trenches 482 and 483) and a second 1 km away (trenches 469–471; both of these foci lay within an area of land known as Mown Rakes). The most promising environmental samples came from trench 482 and suggested domestic activities including crop processing; these derived from the area where evidence for possible nearby pottery production was detected. The third focus of activity comprised an insecurely dated concentration of features (trenches 545 and 546), thought to form a continuation of activity recorded by excavation at the proposed converter station site as part of the wider Viking Link project and during the parallel Triton Knoll Offshore Windfarm project (Headland Archaeology forthcoming).

2.1.12 Other than unstratified finds, no evidence of medieval activity was positively identified; post-medieval/modern and undated features were scattered along the length of the Zone 3 evaluation area, and were chiefly related to cultivation and other agricultural activities.

Geoarchaeological borehole survey (2020–2021)

2.1.13 A geoarchaeological borehole survey was undertaken between Hagnaby Lock and Bicker Fen (Zone 3) to refine understanding of the presence, nature and distribution of superficial sediments and palaeoenvironmental sequences across the scheme (Wessex Archaeology 2022a). A total of 29 geoarchaeological boreholes were excavated and combined with information from earlier surveys (including Environmental Archaeology Consultancy 2020)

and the Zone 3 archaeological evaluation (Wessex Archaeology 2021c) in order to create a deposit model.

2.1.14 In brief, the geoarchaeological sequence was summarised as comprising glacial till (generally recorded at 0 m to -3 m OD), overlain in places by a discontinuous peat, which was interpreted as being generally of Bronze Age date. Overlying the till or peat (where present) across much of Zone 3, generally above levels of 0.0 m OD, was a sequence of alluvial silts/clays, including silty clays of intertidal and saltmarsh origin. Within Zone 3, the silty clays were found to be overlain by the modern topsoil/ploughsoil at around 1.0–2.5 m OD. In places the glacial till was cut through by valleys of freshwater channels, most likely of Late Devensian or early Holocene date.

2.2 Archaeological and historical context

Introduction

2.2.1 The archaeological and historical background was assessed in the updated DBA (Network Archaeology Ltd 2019), and a summary of the results is presented below. Additional sources of information are referenced, as appropriate.

Prehistoric (to AD 43)

2.2.2 The Palaeolithic period is evidenced by flint hand axes found at Welton-le-Wold Quarry, in Salmonbury, north-west of the cable corridor. A possible Upper Palaeolithic or Mesolithic flint tool has also recorded from near East Keal.

2.2.3 Mesolithic flint scatters are known in the Lymn valley and on the southern edge of the Wolds overlooking low-lying land to the south (Bennet 2009, 19). Mesolithic flints have also been recovered from the fen edge near East and West Keal, and at Hagnaby Lock.

2.2.4 Marine incursions and impaired natural drainage led to peat development and the deposition of marine silts, sands and clays in the area of the northern fen-edge from the Middle/Late Neolithic (Lane 1993, 41).

2.2.5 Neolithic and Bronze Age remains are concentrated along the Wolds, with significant numbers of long barrows including at Dalby, Dexthorpe and the Spellow Hills. Over 350 certain or possible round barrows have been recorded on the Lincolnshire Wolds, pointing to the possible ritual significance of the uplands in prehistory. The Lymn valley may have been an important focus in the Neolithic and Bronze Age: there is a distinct cluster of findspots of Neolithic axeheads (Bennet 2009, 21–23) within the valley, where an important group of round barrows and a bowl barrow are also known. Ancient trackways in the wider area include the Bluestone Heath Road and Caistor High Street.

2.2.6 Ring Holt Barrow is a scheduled monument that lies within the cable corridor in Zone 2 (NHLE 1015770). The barrow was subject to detailed geophysical and LiDAR assessment which found it sits within a well-established ritual landscape in use from the Neolithic period, with Neolithic and Bronze Age monuments followed by settlement activity later in prehistory.

2.2.7 A Bronze Age burnt mound and settlement evidence have been recorded on a sandy ridge along the route, while flint find spots are more limited from outside the Wolds; flint scatters have also been recorded on the fen edge near East and West Keal and near Stickford.

2.2.8 Iron Age activity is relatively scarce, with most evidence in the form of pottery and finds scatters.

Romano-British (AD 43–410)

2.2.9 Changes to native ways of life are not archaeologically visible for several generations following the Roman invasion, with continuity rather than dramatic change characterising the start of the period (Bennet 2009, 25). Furthermore, it is possible that some of the Romano-British rural sites recorded in the area could have their origins in the Late Iron Age – although few have been subject to survey.

2.2.10 The cable route at the northern end of Zone 2, between Haugh and Dalby, crossed the line of the Roman road linking Lincoln and Burgh-le-Marsh (Margary 27). However, the precise location of the Roman road at this point is uncertain. A chalk and gravel surface along with some Romano-British material culture was found in the vicinity of the road andt may be its ploughed-out remains (Albone 2016, 344).

2.2.11 The remaining evidence for the Romano-British period is commonly encountered as scatters of finds. Some are believed to denote locations of Romano-British settlement, especially those located near Langton by Spilsby and East Keal – the remains interpreted as Romano-British agricultural sites. The Lymn valley was an important area during this period also, with aerial photographs and other surveys revealing a relatively high density of Romano-British settlement represented by a landscape of small farms and associated enclosures (Jones 1998, 75, 78; Bennet 2009, 25). A Middle/Late Iron Age–Romano-British village, including the remains of a wooden shrine, has been partially excavated within the Lymn valley, to the west of Partney (and a little over 1 km south-east of the current route) (Archaeological Field Unit 2005).

2.2.12 A plethora of cropmarks has been identified in the rest of Zone 2 through the aerial and LiDAR assessments and include possible prehistoric enclosures, ring ditches, Romano-British settlements, enclosures and potential villas.

2.2.13 By contrast, the northern part of Zone 3 has been characterised by previous surveys as being a relatively impoverished backwater during the Romano-British period (Lane 1993).

2.2.14 Marine incursions in south-east Lincolnshire occurred during the Romano-British period, possibly as far as the foot of the Wolds, leaving a scatter of settlement on ‘islands’ of higher ground (Simmons 2022, 1).

2.2.15 The area traversed by the cable route contains relatively few entries within the records of the 2016 *Rural Settlement of Roman Britain* project (Smith 2016, fig. 5.3 and 5.4; Allen 2016, fig.7.3 and 7.4). The results of this study suggest that, within the Wolds and lowlands of south-east Lincolnshire, small farmsteads would be most characteristic of the rural settlement record. Such farmsteads would most likely have favoured lower-lying ground such as valley slopes and river terraces, and most had a later 2nd-century heyday, with numbers declining gradually thereafter and precipitously after the late 4th century. Farmsteads were associated with trackways and field systems and engaged in mixed agriculture, with many displaying evidence for a concern with increasing productivity during the period of the Roman occupation.

2.2.16 The Viking Link cable route overlaps with the ‘Central Belt’ and ‘North-East’ geographic zones defined by the *Rural Settlement of Roman Britain* project, and authors of the regional overview of each stress the diversity within the records, however (Smith 2016, 206; Allen 2016, 280).

Early medieval (AD 410–1066)

2.2.17 Following the collapse of Imperial rule in the 5th century, farms declined and disappeared as the economic system that had underpinned the associated patterns of landuse within the Roman province fragmented and contracted. Place-name evidence indicates that many settlements in the area can trace their origins to the Anglo-Saxon period and later Danish occupation. Anglo-Saxons cemeteries, with cremation the dominant rite initially and inhumation later, characterise the archaeology of the early medieval period within the region. The enduring significance of the Lymn valley is expressed during this period also, with an important cemetery recently excavated at Scremby, and further burial remains recorded near East and West Keal.

2.2.18 Fieldwalking along the route of the West Keal bypass recovered finds dating to the early medieval period including Saxon pottery, and more unusual items like a piece of burnt amber and a polished bone. These stray finds suggest a background level of occupation during this time within the area. Excavated Anglo-Saxon settlement sites from around the Wolds have recorded sunken-floored buildings with pits and postholes, compounds for livestock (predominantly cattle), the cultivation of arable crops (especially barley), and textile production using wool or flax (Bennet 2009, 29).

2.2.19 Lindsey is thought to have been an important area during the Anglo-Saxon period with evidence for cultural and commercial links with other parts of Britain as well as the Continent (Bennet 2009, 29).

Medieval (AD 1066–1500)

2.2.20 Russell's 2009 survey recorded 220 deserted medieval settlements within Lincolnshire, with a landowner-led shift from arable to sheep farming, demographic shifts because of the Black Death and later emparkment cited as reasons behind such abandonment.

2.2.21 With the collapse of the wool trade, which had become critical to the local economy, more settlements became deserted, including those at Stickford and East Keal, while drainage ditches that allowed the land to be grazed were left to silt up. Other remnants of former land management include the remains of ridge and furrow identified at Dalby, Langton by Spilsby, Sausthorpe, Raithby, Hundleby, Mavis Enderby and West Keal. A number of finds scatters have also been found in Zone 2, suggesting some low-level activity occurred during the late medieval period.

2.2.22 While the wool trade came and went, saltmaking remained a constant in the fenland into the medieval period, and the sites in use during the medieval period are marked by distinctive mounds, unlike their Romano-British predecessors.

2.2.23 Excavations on the Partney by-pass, within 2 km of the cable route, exposed part of the important 12th–15th-century rural chapel/hospital complex of St Mary Magdalene, which was linked to Bardney Abbey (Atkins and Popescu 2010).

Post-medieval and modern (AD 1500–present)

2.2.24 Following the dissolution of the monasteries in the mid-16th century, the land owned by the Church was transferred into lay ownership, and it was commonly then enclosed, and new drainage ditches dug to open the land up to agriculture. This agricultural character was supported by dispersed farmsteads located on the former marshlands, which were responsible for working immediate holdings.

2.2.25 The settlements in the area expanded, which is evidenced by the increase in now listed buildings that trace their origins to this period, while wealthy landowners also began

constructing large halls and country houses surrounded by designed landscape gardens. Most of the evidence for settlement in the wider landscape of Zones 2 and 3 takes the form of isolated farmsteads.

2.2.26 During the 18th century, the Wolds was regarded as something of an agricultural backwater, but during the 19th century it became an "acclaimed centre of 'Victorian high farming'" (Rawding 2009, 41) as a landscape formerly 'characterized by rabbit warrens and sheep walks was converted into an extremely highly regarded area of mixed farming with an emphasis on wheat, barley, turnips and sheep' (op. cit. 45–46).

2.2.27 The fenland saltmaking industry declined during the later Middle Ages and the activity had essentially ceased by the mid-17th century (Simmons 2022, 159).

2.2.28 Windmills had been used to aid drainage of the fenland by pumping water away, but stable drainage was finally achieved using coal-fired pumping engines in the 18th and 19th centuries (Lord and MacIntosh 2011, 48).

2.2.29 In the early 19th century, West Fen and Wildmore Fen, situated around the northern fen edge and crossed by the cable route in the parishes of West Fen, Carrington, Frithville-and-Westville and Langriville, 'constituted the last substantial tract of the Wash Fenland to undergo drainage' (Lane 1992, 3).

2.2.30 The location of south-east Lincolnshire meant that it was often flown over by aircraft travelling to and from occupied Europe during the Second World War, with two planes recorded as having crashed at RAF East Kirkby and near Northope.

3 AIMS AND OBJECTIVES

3.1 Aims

3.1.1 The general aims of the excavation, as stated in the WSIs (Wessex Archaeology 2021a and 2021b) and in compliance with the Chartered Institute for Archaeologists' *Standard and guidance for archaeological excavation* (CIfA 2014a), were to:

- examine the archaeological resource within a given area or site within a framework of defined research objectives;
- seek a better understanding of the resource;
- compile a lasting record of the resource; and
- analyse and interpret the results of the excavation and disseminate them.

3.2 Research objectives

3.2.1 Following consideration of the archaeological potential of the scheme in relation to the research agenda set out in the East Midlands Historic Environment Research Framework (EMHERF: Research Frameworks 2021), site-specific objectives were defined in the WSIs (Wessex Archaeology 2021a and 2021b). These are recapped below:

Zone 2

- Many of the SPE areas include linear features that represent field or boundary systems that in turn can be related to systems of agricultural production. Subsistence practices are often important themes within the research agendas and

inform specific research objectives. Dating field systems to understand their regional development is important, as is understanding how their layout and changes therein relate to variations in agricultural practices (pastoral versus arable production strategies) and considering how the environmental evidence can contribute to this understanding. Understanding how these differ spatially helps to develop an understanding of the exploitation of different landscape zones across the region. This work will contribute to specific strategic research objectives for the prehistoric (EMHERF strategic objectives 3I and 4F), Romano- British (5H), medieval (7I) and (8E) post-medieval periods.

- Traces of habitation were targeted in a large number of the excavation areas (e.g., SPE 7, 8, 11, 12, 17, 33, 21, 22, 28, 30). Establishing the chronology of these sites was considered essential within the WSI. Excavation areas that were thought in the WSI to potentially have prehistoric settlement included Areas 5, 9, 18, 26, 29 and 35. Areas 18 and 35 in particular were thought to be of possible Bronze Age date and 29 was considered to be possibly Iron Age. Prehistoric settlement in this part of the Wolds is relatively sparse, particularly for the Iron Age, and adding to the corpus of sites is in itself important to help appreciate the relative visibility of settlement across space and time. Revealing the settlement morphology and function of these sites will help to discern how they relate to the wider landscape and regional systems of exploitation.

- The Zone 2 WSI stated that the presence of Romano-British settlement ‘is well attested’ in excavation areas 21, 25, 34, 40 and 31 and ‘will probably be located at many of the other areas. For the Romano-British period, rural settlement forms an important aspect of the research agenda, which again focus on understanding settlement hierarchies and how they relate economically and agriculturally to the differential exploitation of the landscape (e.g., EMHERF strategic objective 5H).

- The WSI stated that the recovery of potentially Early Saxon pottery from evaluation trench 300 (the area of which was later targeted by Area 29) was interesting given the lack of similarly dated material recovered during the evaluation programme, prompting the following research questions: ‘Can we cast light on the transition between the Romano-British and Early Saxon periods and illuminate the relative dearth of Early Saxon activity?’

- Ring ditches such as that identified in Area 9 are typically Late Neolithic–Middle Bronze Age funerary monuments that are sometimes sited on earlier sites of occupation and become the focus of later funerary activity. The WSI noted ‘the discrete features also identified by the geophysical survey of SPE area 9 may relate to either traces of habitation or funerary activity’, and identified their date and function/association with the ring ditch as requiring clarification.

- Prehistoric funerary monuments are also commonly used as way markers to site later boundaries and landscape divisions. With regard to Area 9, the WSI identified the following questions: ‘To what extent does the boundary ditch apparent in the geophysical survey reference the ring ditch and how does its orientation deviate to do so? What is the dating of this boundary and what does this imply as to the continuing visibility of the ring ditch?’

- Regarding Area 24, the research aims in the WSI concentrated on establishing whether or not the potential cremation burial in evaluation trench 146 was as interpreted, determining its date and locating any evidence of associated funerary

practices: 'does it belong to a larger collection of burials and are there any clues to why they were sited here?'

- A general aim within the WSIs was to assess the potential for the recovery of artefacts to assist in the development of type series within the region.

Zone 3

Site-specific objectives

- For Areas 50 and 51, which targeted the areas of buildings known from historic maps, the Zone 3 WSI (Wessex Archaeology 2021b) stated that results may contribute to objectives in chapters 8 and 9 (post-medieval and modern) of the EMHERF. For example, 8C ('Establish a typology of regional building traditions'), 8D ('investigate developments in estate and garden design and their landscape contexts'), 8.3 ('Agricultural landscapes and economy'), 8.4 ('Rural settlement patterns and building traditions'), 9G ('Assess landscape impact of industrialisation of agriculture'), 9H ('Identify and record rural historic environment features'), 9.1 ('Urban and rural settlements'), 9.2 ('Buildings in town and countryside') and 9.6 'Agriculture'.

- The Romano-British remains from Areas 52–55, 60 and 61 were marked as having potential to contribute more broadly to objectives in chapter 5 of the EMHERF, including objectives 5H ('Investigate landscape context of rural settlements'), 5.4 ('Rural settlement patterns and landscapes'), 5.5 ('Agricultural economy') and/or 5.6 ('Artefacts: production, distribution and social identity'). The WSI noted that 'the high potential of environmental remains from Area 55 may be particularly suitable for this'.

- The suspected presence of a Romano-British pottery production centre somewhere near Area 55 led the Zone 3 WSI to observe that 'the remains of pottery production may contribute to research objective 5A ('Create regional pottery corpora and publish key production centres') and 5B ('Support dissemination and synthesis of information on Roman finds'), particularly with reference to 5.4 ('Rural settlement patterns and landscapes'), 5.6 ('Artefacts: production, distribution and social identity') and perhaps 5.1 ('Chronology') or 5.5 ('Agricultural economy')'.

- The Zone 3 WSI remarked that the remains targeted by Areas 56–59 were at that time too poorly dated and understood to identify specific research questions to which they may have been able to contribute, although such objectives may be identified 'at a subsequent time'.

General objectives

3.2.2 As well as the site-specific objectives for Zone 3 highlighted above, the following general objectives were identified for the mitigation within that part of the scheme:

- to investigate and record features of archaeological origin;

- to determine (where possible) the location, depth, extent, character, date, condition and significance of any archaeological deposits or features;

- to report on the results of the mitigation and disseminate them in a manner appropriate to their significance; and,

- to produce a site archive for deposition with The Collection Museum and to provide information for accession to the museum.

4 METHODS

4.1 Introduction

4.1.1 The Zone 2 and Zone 3 WSIs proposed the excavation of 38 Set Piece Excavation (SPE) areas (of which 28 were in Zone 2 and 10 in Zone 3) and two strip and map mitigation areas (both in Zone 3) (Wessex Archaeology 2021a; 2021b).

4.1.2 All works were undertaken in accordance with the detailed methods set out within the WSI (Wessex Archaeology, 2021a, 2021b) and in general compliance with the standards outlined in CIfA guidance (CIfA 2014a). The post-excavation assessment and reporting followed advice issued by the Association of Local Government Archaeological Officers (ALGAO 2015). The methods employed are summarised below.

4.2 Fieldwork methods

General

4.2.1 The excavation areas were set out using a Leica Global Navigation Satellite System (GNSS) connected to Leica's SmartNet service, in the same position as that proposed in the WSI (Fig. 2). The topsoil/overburden was removed in level spits using a 360º excavator equipped with a toothless bucket, under the constant supervision and instruction of the monitoring archaeologist. Machine excavation proceeded in level spits until the archaeological horizon or the natural geology was exposed.

4.2.2 Where necessary, the surfaces of archaeological deposits were cleaned by hand. A sample of archaeological features and deposits was hand-excavated, sufficient to address the aims of the excavation. A sample of natural features, such as tree-throw holes, was also investigated.

4.2.3 Spoil derived from machine stripping and hand-excavated archaeological features was visually scanned for the purposes of finds retrieval. A metal detector was also used: machine-stripped spoil was routinely scanned and within excavation areas that were materially rich, features were scanned prior to excavation and spoil scanned subsequently. Artefacts were collected and bagged by context. All artefacts from excavated contexts were retained, although those from features of modern date (19th century or later) were recorded on site and not retained.

Recording

4.2.4 All archaeological features and deposits were recorded using Wessex Archaeology's pro forma recording system. A complete record of excavated features and deposits was made, including plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid.

4.2.5 The Leica GNSS surveyed the location of archaeological features. All survey data is recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.

4.2.6 A full photographic record was made using digital cameras equipped with an image sensor of not less than 16 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

UAV photogrammetry

4.2.7 Aerial photography of Areas 8, 9, 18, 40, 53, 54 and 55 was collected using an unmanned aerial vehicle (UAV) for the purpose of producing detailed topographic datasets of the excavated areas.

4.2.8 The UAV surveys were undertaken with a DJI Mavic Pro 2 equipped with a Hassleblad L1D-20c 3-axis gimbal stabilised 20.1-megapixel camera.

4.2.9 A series of ground control points (GCPs) were recorded using a Leica Captivate Global Navigation Satellite System (GNSS) set to a minimum 3-dimensional accuracy of 30 mm in order to establish control and to accurately geo-locate the aerial survey.

4.2.10 The collected data was processed in Pix4D Mapper version 4.6.4 to produce detailed orthomosaic images with an average ground sampling distance (GSD) of <2cm per pixel.

Terrestrial photogrammetry

4.2.11 Photogrammetric recording was used to record the inhumation burials uncovered in Area 9 for the purpose of producing detailed 3-dimensional models and orthomosaic images.

4.2.12 Photographs were taken with a Pentax K50 equipped with a Pentax SMC DA 18-55 mm f/3.5-5.6 AL WR lens or a Canon EOS 4000D equipped with a Canon EF-S 18-55 mm lens.

4.2.13 The Pentax K50 has a 23.7 x 15.7 mm CMOS sensor with 16.49 megapixels. The Canon EOS 4000D has a 22.3 x 14.9 mm CMOS sensor with 18.7 megapixels.

4.2.14 GCPs were established using a Leica Captivate Global Navigation Satellite System (GNSS) set to a minimum 3-dimensional accuracy of 30 mm.

4.2.15 Processing was undertaken using the latest iteration of Agisoft Metashape Professional software and produced orthomosaic images with an average GSD of <5 mm per pixel.

4.3 Finds and environmental strategies

General

4.3.1 Strategies for the recovery, processing and assessment of finds and environmental samples were in line with those detailed in the WSI (Wessex Archaeology 2021a, 2021b). The treatment of artefacts and environmental remains was in general accordance with: *Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014b), *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011) and CIfA's *Toolkit for Specialist Reporting* (Type 2: Appraisal).

Human remains

4.3.2 The human remains were removed under the terms of the Ministry of Justice licence held by Wessex Archaeology (Ref: 20-0152). The excavation and post-excavation processing and assessment of human remains was in accordance with Wessex Archaeology protocols, and undertaken in line with current guidance documents (e.g., McKinley 2013) and the standards set out in CIfA Technical Paper 13 (McKinley and Roberts 1993).

4.4 Monitoring

4.4.1 The work was monitored by the archaeological advisors to the local planning authorities. Any variations to the WSI, if required to better address the project aims, were agreed in advance with the client and the archaeological advisors.

5 EVALUATION TRENCHING

5.1 Introduction

5.1.1 The results of the evaluation trenching programme undertaken by Wessex Archaeology in Zone 3 were presented in an earlier report (Wessex Archaeology 2021c). However, the results of the trenching in Zone 2, undertaken by both Wessex Archaeology and Network Archaeology Ltd, have not been formally reported on, and so a summary of the results is presented below, by cable route section within Zone 2.

5.1.2 The results of the assessment of the artefacts collected, by both Wessex Archaeology and Network Archaeology Ltd, during the evaluation of Zone 2 is presented in the main body of this report, alongside the assemblages from the mitigation areas.

5.1.3 Figures 3–29 show the excavated evaluation trenches, and trench summary tables appear in Volume 2, Appendix 5.

Table 1 Summary of evaluation trenching results in Zone 2

Cable route section	Trenches	Fig.	Summary of results
10	219, 220, 221, 311	4	Trenching revealed no archaeological features.
11	222, 223, 76, 55, 312, 54, 74, 75, 224, 225, 2, 226, 5, 264, 265	4, 5, 6	Two of the 15 trenches contained archaeological remains: trenches 223 and 76, both in the north-eastern half of the section. The trenches revealed a single gully each; an iron spike was retrieved from subsoil in trench 223.
12	313, 3, 1, 77, 78, 4, 705, 704, 703, 702, 701, 700 227, 314, 60, 79	6, 7, 8	Archaeological evidence was identified in six trenches. Trenches 60 and 313 revealed medieval/post-medieval furrows, and undated ditches were investigated in trenches 700, 701, 702, 703 and 313.
13	80, 61, 6, 315, 81, 62, 7, 82, 8, 83, 84, 85	8, 9, 10	Archaeology was identified in four trenches (6, 61, 7 and 84). Trenches 6 and 61 revealed a moderate–high density of archaeological features which included postholes, pits, a ditch and furrows. Prehistoric, possibly Iron Age, pottery was recovered from one of the postholes in trench 61. An undated ditch was recorded in trench 84; there was an undated ditch and a pit in trench 7.
14	64, 86, 316, 87, 268, 63, 88, 269, 10, 90	10, 11	Trenching revealed no archaeological features.

Cable route section	Trenches	Fig.	Summary of results
15	9, 89, 317, 11	11	Archaeological remains were found in three of the trenches. Features consisted of undated ditches or possible furrows in trenches 89 and 317, and a curved gully and two discrete features in trench 11.
16	91, 154, 93, 271, 318, 13, 19, 272, 14, 18, 15, 143, 94, 65, 16, 17	12, 13	Archaeological remains were identified in seven trenches. Trenches 91, 19, 15, 18, 272, 94 and 143 revealed ditches, gullies and pits. Romano-British pottery was retrieved from a pit in trench 143 and Iron Age/early Romano-British pottery from a ditch in trench 18. A Neolithic axe was retrieved from trench 94.
17	319, 96, 97, 21, 95, 20, 22, 66	13, 14	Archaeological features were investigated in seven out of eight trenches. Trenches 319 and 96 revealed a high density of archaeological features which included ditches, postholes and pits. Undated ditches were investigated in trenches 97, 21, 95, 22 and 66. Three pieces of worked flint were recovered from topsoil in trenches 95 and 97.
18	274, 273, 67, 23, 98, 320, 228, 229, 51, 99, 26, 25, 24, 230, 258	14, 15, 16	Trenches 230, 273 and 320 revealed concentrations of archaeological features. A pit and 11 ditches showing several phases of activity were recorded in trench 230; finds included an iron nail and a part of an iron blade as well as prehistoric and Romano-British pottery. Further linear features were investigated in trenches 320 and 273, with Romano-British pottery retrieved from a ditch in trench 320.
19	231, 100, 321, 101, 152, 29, 27, 31, 32, 28, 103, 102, 275, 30, 105, 106, 33, 276, 277, 297	16, 17	Seven out of the 20 trenches contained archaeological features (321, 32, 29, 27, 103, 102 and 105). The majority of the features were recorded in trench 27 and included six ditches which contained sherds of Romano-British pottery. Romano-British pottery was also retrieved from a ditch in trench 31 and undated pottery from a tree-throw hole in trench 103. Prehistoric pottery was recorded in a ditch in trench 102, and two undated features were investigated in trench 105.
20	259, 232, 322, 237, 108, 111, 233, 34, 110, 109, 234, 112	18, 19	Archaeological features were investigated in three trenches: 109, 110 and 237. A pit with some evidence of *in situ* burning was recorded in trench 109. An undated ditch was recorded in trench 110; two ditches (one containing worked flint) and a pit were recorded in trench 237. An early Anglo-Saxon glass bead was recovered from the topsoil of trench 322.
21	156, 157, 323, 35, 144, 113, 235, 145	19	Two of the eight trenches revealed archaeological features. Trench 156 at the north end of the section, exposed an undated ditch and a possible post-medieval quarry or marl pit. Trench 235, located towards the southern end of the section, identified another undated ditch.
22	114, 37, 115, 146, 36, 116, 147, 236, 324	20	Archaeological features were investigated in four trenches: 37, 116, 146 and 236. The trenches revealed undated ditches, furrows and a small pit. There was a feature with burnt animal bone in trench 116.

Cable route section	Trenches	Fig.	Summary of results
23	298, 120, 299, 39, 68, 40, 119, 38, 118, 148, 238, 70, 121	21	Five out of 13 trenches contained archaeological features (39, 40, 118, 119 and 120). Three ditches and four pits were recorded.
24	239, 240, 279, 241, 278, 69, 325, 125, 122, 280, 124, 149	21, 22	Archaeological features were investigated in four trenches: 239, 122, 280 and 149. An undated ditch and three furrows were recorded in trench 239 at the northern end of the section, while the southern part revealed two undated ditches in trenches 122 and 280. Prehistoric pottery was retrieved from a pit or ditch terminal in trench 149. Additionally, two lynchets (shallow terraces) were also identified in trench 149, with worked flint, pottery dated to the Neolithic/Bronze Age, and a single Romano-British pot sherd.
25	242, 243, 244, 245, 246, 326, 247, 248, 249, 123, 41, 126	22, 23, 24	Six out of 12 trenches had archaeological remains. The trenches located in the southern part of the section (trenches 41, 123, 126, 248 and 249) revealed a significant concentration of features comprising curved gullies, discrete features and ditches, some of which contained prehistoric pottery. Only one trench in the northern half contained archaeological remains: a single undated ditch was revealed in trench 242.
26	281, 282, 283, 284, 129, 128, 127, 42, 327, 117, 300, 132, 130, 131, 250, 251	24, 25	Six trenches contained archaeological features which included ditches, pits and a row of postholes. The majority of the features were found in trenches 130, 132 and 300. Some features were undated, but others had pottery dated to the prehistoric/Iron Age and Romano-British periods.
27	252, 253, 254, 328, 43, 255, 133, 44, 45, 256, 134, 46, 137	25, 26, 27	A total of 13 trenches were excavated, with archaeological features recorded in two (trenches 46 and 137) at the south-western end and two (trenches 252 and 253) in the northern end. Multiple ditches and a pit dating to the Romano-British period were recorded in trenches 46 and 137, although prehistoric and Saxon activity may also be represented. Trenches 252 and 253 revealed medieval/post-medieval furrows.
28	47, 136, 48, 329, 138, 135, 150, 140, 139, 257, 141	27, 28	Trenches 47, 136, 48, 135, 138, 139, 140 and 329 exposed archaeological features, comprising 22 linear features and seven pits. Pottery from these features dated to the prehistoric, Iron Age and Romano-British periods.
29	49, 50, 287, 286, 285, 330, 151, 142, 350, 351	28, 29	Three out of ten trenches contained archaeological features, namely a ditch in trench 286 and a ditch and three pits in trench 151. Ditches from both trenches were recorded cutting subsoil and were possibly medieval or post-medieval features. Trench 350 contained a field boundary.

5.2 Section 10

5.2.1 Section 10 is the northernmost section of Zone 2 and is located immediately south-west of Well High Lane, extending over three arable fields to the south of the village of Haugh (Fig. 4). The section is 0.6 km long and contained four trenches (219, 220, 221 and 311), all of which were archaeologically blank.

5.3 Section 11

5.3.1 Section 11 extends south-west of the village of Haugh towards the A16, north-west of Ulceby Cross roundabout (Figs 4, 5 and 6). The section is 1.6 km long and crosses five arable fields. Fifteen trenches were excavated (Fig. 108), with two containing undated archaeological features. The gully excavated in trench 223 was cut into the subsoil whilst another gully in trench 76 was overlain by subsoil. An iron spike was retrieved from subsoil in trench 223, which could indicate the subsoil was a former ploughsoil. The area around the two trenches in question was not subject to geophysical survey. A quarry pit is recorded east of the section on historic OS mapping.

5.4 Section 12

5.4.1 Section 12 is located immediately west of the A16, north of Ulceby Cross roundabout, and extends south-west to a minor road north-east of the village of Sutterby (Figs 6, 7 and 8). The section is approximately 1.5 km long and crosses five arable fields and a north-west to south-east aligned minor road south-east of the village Driby. Sixteen trenches were excavated with six containing archaeological remains. Trenches 700, 701, 702 and 703 (Fig. 109), in the centre of Section 12, each contained a ditch (all were undated).

5.4.2 At the northern end of the section, trench 313 revealed an undated ditch and a furrow which were interpreted as a trackway with wheel-ruts when excavated during the mitigation phase (Area 5). A single Romano-British pottery sherd was found in the trackway during mitigation. Trench 313 lay close to previously identified cropmarks, some of possible Romano-British date (LHER MLI185124), and anomalies identified by the geophysical survey (Headland Archaeology 2017b; 2019; Sumo 2017) later investigated during the mitigation stage (Area 5). At the southern end of the section, furrows were identified in trench 60.

5.5 Section 13

5.5.1 Section 13 extends from the minor road that runs between Harrington Hill and Ulceby Cross roundabout southwards towards Langton Hill (Figs 8, 9 and 10). The section covers 1.2 km and crosses five arable fields east of the village of Sutterby. In total, 12 trenches were excavated, with archaeological features identified in four. The majority of the features were recorded in trenches 6 and 61 (Fig. 110), of which a few were further investigated during the mitigation phase (Area 35).

5.5.2 Trench 61 was partially within Area 35 and trench 6 was immediately south-east of it. In trench 61, a quarry pit, a furrow (recorded as an undated ditch during mitigation) and seven postholes were recorded. Animal bone and possible prehistoric/Iron Age pottery was retrieved from the postholes. Beyond the cable route to the east are a possible Neolithic long barrow and possible Bronze Age round barrow (HER MLI82316 and MLI82317), and to the west are prehistoric cropmarks (HER MLI85348 and MLI85349); some of the features in trench 61 may be associated with these remains. A ditch, three furrows, a possible pit or ditch terminal and two postholes were investigated in trench 6, with no finds recovered.

5.5.3 Trench 7 revealed a pit (Fig. 111) and a ditch visible as a curvilinear feature in the geophysical survey results (Headland Archaeology 2017b). The large pit identified as a

quarry pit cut the subsoil in trench 84 towards the southern end of the section. Both quarry pits (in trenches 61 and 84) could be associated with quarrying recorded south-west of the section (HER MLI85354) and be fairly recent in date.

5.6 Section 14

5.6.1 Section 14 is located north-east of the village of Langton, west of the A16, running from Langton Hill towards Dalby where it ends at the minor road linking Langton Hill and the A16. The section covers 0.8 km and crosses several arable fields. Ten trenches were excavated within the section, all located in its eastern half. Geophysical survey identified a probable ladder settlement in the western half of the section, and this proceeded straight to mitigation excavation (Area 8). No extension of that focus of activity was noted in the evaluated part of Section 14, with all ten trenches proving archaeologically blank.

5.7 Section 15

5.7.1 Section 15 extends from the minor east–west road linking Langton Hill and the A16, towards Dalby to the south where it ends south-west of Home Farm (Figs 10 and 11). The section covers 0.4 km and crosses four arable fields. Four trenches were excavated, with three containing archaeological features. A gully was recorded in trench 89, and trenches 89 and 317 both contained an undated furrow (Fig. 112).

5.7.2 Trench 11 revealed one curved ditch and two ditch terminals/pits with no datable evidence. The features tally with linear anomalies detected during the geophysical survey (Headland Archaeology 2017b). The features in trench 11 are very close to the Bronze Age Ring Holt Barrow (SM No. 1017466) to the south-west and other probable prehistoric sites recorded in the LHER, and could relate to them. Additionally, the geophysical survey revealed to the north-east of trench 11 another ring ditch, which was investigated during the mitigation phase (Area 9) and found to be a probable barrow reused as an Anglo-Saxon inhumation cemetery.

5.8 Section 16

5.8.1 Section 16 is located west of the village of Dalby, extending from Home Farm towards Sausthorpe, and is 1.3 km long (Figs 12 and 13). The section crosses four arable fields and contained 16 trenches. Archaeological features were recorded in seven trenches. Trench 91 at the northern end of the section revealed a post-medieval field boundary with modern metalwork within its fill.

5.8.2 Two trenches (19 and 272), located in the centre of the section, revealed three linear features and a single pit. This part of the route was further investigated during the mitigation phase (Area 36), and one of the linear features in trench 272 was interpreted as a possible post-medieval field boundary.

5.8.3 The most significant features were, however, found in the southern part of the section. Trenches 18 and 15 revealed five ditches, two gullies and a charcoal-rich pit. Features recorded in trench 15 were undated but tied in with possible medieval boundaries recorded in the mitigation phase (Area 17). The features in trench 15 are not visible on the geophysical survey (Headland Archaeology 2017b) but seem to lie within a rectangular enclosure visible on the survey and recorded in mitigation. Two north-west to south-east running ditches were recorded in trench 18 and align with a double-ditched boundary detected by the geophysical survey (Headland Archaeology 2017b). Iron Age/early Romano-British pottery was retrieved from a ditch in trench 18.

5.8.4 A gully and a pit containing a Neolithic polished axe were recorded in trench 94 (Fig. 113). Other prehistoric finds have previously been recorded near trench 94, including a Neolithic stone axe (HER MLI41478), a Bronze Age arrowhead (HER MLI42482) and a Bronze Age flint scatter (HER 42480). One ditch, four pits, and a pit/ditch terminal with Romano-British pottery were recorded in trench 143 (Fig. 114). This overlapped with the location of mitigation Area 33, although no corresponding discoveries were made during that site's excavation.

5.9 Section 17

5.9.1 Section 17 is 0.7 km long; its northern limit lies at an unnamed tributary of the River Lymn and its southern limit is formed by the A158 where it runs between Sausthorpe to the west and Partney to the south-east (Figs 13 and 14). The section crosses two arable fields and contained eight trenches, seven of which revealed archaeological remains. The majority of the features were investigated in trenches 319 (Fig. 115) and 96 in the north-eastern part of the section which was later excavated in the mitigation phase (Area 18).

5.9.2 Three ditches and three gullies were investigated in trench 319. Two of the linear features produced animal bone but only one ditch contained datable evidence: prehistoric and Romano-British pottery. The ditch was further investigated during the excavation of Area 18 and found to contain Romano-British, Middle Saxon (8th-century AD) and late medieval pottery, a loomweight and a copper alloy needle. Other linear features recorded in trench 319 were revealed to be Romano-British or medieval/post-medieval during the mitigation. Additionally, four undated postholes and three pits were investigated in trench 319.

5.9.3 Trench 96 revealed six linear features, all undated except for a north-west to south-east running ditch which was found to belong to the medieval period (late 13th–15th century) in the mitigation phase.

5.9.4 Features investigated in trenches 97, 21 (Fig. 116), 95, 22 and 66 were all undated and were not visible in the geophysical survey data (Headland Archaeology 2019). It is possible they relate to an enclosure identified previously to the south-east of the section (HER MLI85188). Features in trenches 22 and 66 most likely related to the undated boundary and discrete features recorded in the mitigation phase (Area 19). Trench 22 revealed two north-east to south-west aligned furrows, also investigated during the mitigation (Area 37), with one found to contain a medieval (late 13th to 15th century) pottery sherd. Additionally, worked flint was found in the topsoil in trenches 95 and 97.

5.10 Section 18

5.10.1 Section 18 is aligned north-east to south-west and extends for 1.5 km from the A158 to a minor road linking Sausthorpe in the north and Raithby by Spilsby in the south; Section 18 contains the cable route crossing point of the River Lymn (14, 15 and 16). The section traverses four arable fields and contained 15 trenches, three of which revealed archaeological features.

5.10.2 Two north-west to south-east aligned linear features were investigated in trench 273 but returned no datable evidence. Trench 320 revealed a further two north-west to south-east gullies and two ditches. Two pieces of worked flint and a single sherd of Romano-British pottery were recovered from the ditches. One of the gullies was cut through the subsoil and is presumed to be post-medieval. The area around trench 320 was investigated further during the mitigation (Area 20), although there was little correspondence between the results of the two phases of work. To the north-west of trench 320, just outside the cable route easement, are cropmarks of possible Romano-British enclosures (HE NMR 1504032).

5.10.3 Eleven linear features and a pit were recorded in trench 230 (Fig. 117), some were further investigated during the mitigation phase (Area 21). During the evaluation, nine features remained undated, whereas three, located at the northern end of trench, contained dating evidence: an east to west running ditch produced prehistoric/Romano-British pottery, the ditch cut by a curvilinear ditch which had 3rd-century pottery and an iron nail. Contemporary with the curvilinear ditch was another curved feature which had 1st–3rd-century pottery. The excavated features located in the centre of the trench were further investigated during the mitigation and included three gullies, one of which was recorded as a land drain, and a north-east to south-west running ditch, with pottery of late 4th/early 5th-century date found in the mitigation phase. Overall. the features represent three phases of activity and undoubtably relate to Romano-British and post-medieval activity recorded in the mitigation. The features recorded were not visible on geophysical survey but lie within 1 km of cropmarks of possible Romano-British enclosures (HER MLI85191 and HE NMR 1504032).

5.11 Section 19

5.11.1 Section 19 runs parallel to a minor road linking Sausthorpe in the north and Raithby by Spilsby in the south, and lies on the north-western side of that road (Figs 16 and 17). The section is 1 km long, crosses six arable fields and contained 20 trenches, seven of which revealed archaeological features.

5.11.2 A single gully was recorded in trench 321, but no datable evidence was found.

5.11.3 Trenches 32 and 29 revealed an undated gully each. Four gullies and two ditches were recorded in trench 27 (Fig. 118), and one ditch in trench 31. Both trenches were partially overlain by mitigation Area 38. Three features excavated in trench 27 were further investigated in Area 38; the combined finds evidence from both stages of investigation suggests a Romano-British date for these features. The two other features from trench 27 were a ditch with Romano-British pottery, cut by a curved gully. The single ditch in trench 31 also contained Romano-British pottery. Features in trench 27 are visible within the geophysical survey data (Headland Archaeology 2019) and could be part of a larger landscape of Romano-British agricultural boundaries identified to the north (HER MLI85171).

5.11.4 Trench 103 revealed a ditch visible on the geophysical survey, and subsequently recorded in the mitigation phase (Area 22) where the boundary comprised, overall, a sequence of four cuts, some containing Late Iron Age pottery. Additionally, the trench revealed a feature recorded as a tree-throw hole with prehistoric pottery, a pit and an undated gully. A pit and a ditch containing prehistoric pottery were investigated in trench 102, which in the mitigation phase (Area 38) was revealed to be a ring gully. Three undated gullies were investigated in trench 105. In summary, the trenches excavated in the centre of Section 19 contained the majority of the archaeological remains found during its evaluation and relate to activity of possible prehistoric and Romano-British date, further investigated in Area 22 and Area 38 during the mitigation phase.

5.12 Section 20

5.12.1 Section 20 lies parallel to the minor road linking the Raithby by Spilsby crossroads and the crossroads east of Mavis Enderby (Figs 18 and 19). The section crosses a single arable field, and is 0.9 km long. Of the twelve trenches excavated, three contained archaeological features.

5.12.2 Trench 237 revealed a pit and a pair of parallel gullies, with prehistoric worked flint recovered from the subsoil. A pit with some evidence of *in situ* burning recorded in trench

109 (Fig. 119) was initially identified as a kiln or a possible crop-dryer, although only a small proportion was visible within the trench, and subsequent environmental assessment recorded no cereal remains.

5.12.3 A north to south aligned ditch was recorded in trench 110. A glass bead dated to the early Anglo-Saxon period was recovered from the topsoil of trench 322. Romano-British and medieval/post-medieval pottery, iron objects and a possible sickle blade were recovered from trenches 109 and 110.

5.13 Section 21

5.13.1 Section 21 extends from the crossroads east of Mavis Enderby southwards along the eastern side of a minor north–south lane for a distance of some 0.9 km (Fig. 19). The section crosses a large arable field within which eight trenches were excavated; two of these contained archaeological features.

5.13.2 A north–south gully and a pit were recorded in trench 156. The gully lies on a similar alignment to furrows excavated in mitigation Area 11 0.5 km to the north. The pit contained post-medieval CBM. Trench 235 revealed an undated north-west to south-east aligned gully (Fig. 120).

5.14 Section 22

5.14.1 Section 22 continues the course of Section 21, following the eastern side of the same minor north–south lane running south from the Mavis Enderby crossroads (Fig. 20). The section is 0.6 km long and crosses two arable fields. Nine trenches were excavated, with archaeological remains recorded in four.

5.14.2 A ditch and a gully were recorded in trench 37, the ditch aligned with a hedgerow depicted on historic OS mapping. A north-east to south-west aligned ditch in trench 146 was further recorded in the mitigation phase (Area 24) and remained undated. South of mitigation Area 24 was trench 116, where a pit, 11603, containing burnt sheep/goat bone was recorded (Fig. 121). Trench 236 revealed an undated ditch (Fig. 122), not visible within the geophysical survey data (Sumo 2017).

5.15 Section 23

5.15.1 Section 23 is also located on the eastern side of the minor road extending south from the Mavis Enderby crossroads (Fig. 21). The section crosses one large arable field and a small pasture field, and is 0.8 km long. Thirteen trenches were excavated, with five of them exposing archaeological remains.

5.15.2 Two pits were excavated in trench 120. The area went on to be excavated as Area 25, where furrows and an arrangement of six postholes were recorded. Romano-British pottery and several pieces of worked flint and retrieved from the overburden of trench 120. Trench 39, south of Area 25, revealed an east–west running furrow (Fig. 123). One pit was recorded in trench 40, and an east–west gully in trench 119; both were undated.

5.15.3 Trench 118 revealed a gully and a pit; the continuation of the gully was not visible in the overlapping mitigation excavation (Area 26), although the posthole correlates with a Romano-British gully recorded there.

5.16 Section 24

5.16.1 Section 24 is located between the villages of East and West Keal and lies parallel to the minor north–south road between Mavis Enderby and West Keal (Figs 21 and 22). The section is 0.8 km long and crosses three parcels of land. In total 12 trenches were excavated, with archaeological remains recorded in five of them. At the northern end of the section, three furrows and a ditch all crossed trench 239 on the same north-east to south-west alignment. The features match the alignment of ridge and furrow identified by the geophysical survey (Headland Archaeology 2019; Sumo 2017).

5.16.2 Trench 325 revealed an elongated pit with vertical sides and a flat base, the feature is presumed to be modern. A north–south ditch truncated the subsoil in trench 122, but was otherwise undated and did not tally with geophysical survey anomalies (Headland Archaeology 2017b; Headland Archaeology 2019). A focus of flint findspots lay in Section 24: 20 pieces of possible worked flint including a scraper were gathered from the ploughsoil and a further 13 from the subsoil in trench 122. Mitigation (Area 39) immediately south of trench 122 recovered an assemblage of 33 struck flints from the stripped ground surface. Trench 280 also overlapped Area 39 and produced a further 22 pieces of possible worked flint, as well as revealing several furrows.

5.16.3 At the southern end of the section, two possible lynchets and a pit/ditch terminal (Fig. 124) were investigated in trench 149. Flint and prehistoric pottery were recovered from the pit/ditch terminal. Worked flint and prehistoric pottery were also found in the lower fill of the northern lynchet; prehistoric pottery, possible Romano-British pottery and flint were recovered from the southern lynchet. The features recorded in the trench were not visible within the geophysical survey results (Headland Archaeology 2017b; Headland Archaeology 2019). Twenty-seven pieces of worked flint were retrieved from the subsoil and ploughsoil of trench 149.

5.16.4 Additionally, worked flint was found in the topsoil of trenches 54, 124 and 125. Prehistoric activity has been previously recorded around Section 24 and comprises an Upper Palaeolithic blade core (LHER MLI98496), Mesolithic flint scatters (LHER MLI40978, MLI42783 and MLI43312), a Neolithic stone axe (LHER MLI40961), Neolithic to Bronze Age flint scatters (LHER MLI40918, MLI40939 MLI40940, MLI40926) and another, discrete Bronze Age find spot (LHER MLI40998).

5.17 Section 25

5.17.1 Section 25 is located east of West Keal and lies parallel to the A16 on its eastern side (Figs 22, 23 and 24). The section is 1.3 km long and crosses four fields with a total of 12 trenches excavated. Archaeological remains were identified and recorded in six trenches. A single gully was recorded in trench 242 at the northern end of the section; the gully was undated and not visible within the geophysical survey results (Headland Archaeology 2019; Sumo 2017).

5.17.2 There was a concentration of archaeological features in the southern half of the section. Trench 248 revealed a ditch containing a piece of prehistoric pottery, and a gully. A north to south running ditch was recorded in trench 249 and could be a continuation of a north to south aligned gully recorded during mitigation (Area 28 and 34) which produced two sherds of mid-16th–18th-century pottery, as well as a handmade sherd of uncertain (prehistoric?) date. Features in trenches 123, 41 and 126 were further investigated in mitigation Areas 28 and 34. Trench 123 also investigated a north–south gully in Areas 28 and 34, an east–west ditch with medieval pottery recorded later as a furrow, and a ditch with 12 pieces of prehistoric pottery which was not visible during the mitigation excavation. Additionally, two

postholes were recorded, with prehistoric pottery retrieved from one. In total, six ditches, five gullies, three furrows, one pit and two postholes were recorded in trench 41 (Fig. 125). Four ditches had prehistoric–Iron Age or possible Romano-British pottery within their fills. The furrows and gullies excavated in the eastern half of trench 41 were further investigated during the mitigation phase (Area 34). A buried soil lying underneath the subsoil in trench 41 contained 13th–14th century CBM.

5.17.3 Trench 126 was located at the southern end of the section and revealed three ditches. Two of the ditches did not continue into Area 34, however one could possibly be a continuation of a gully to the south. The third ditch was further recorded during mitigation, when mid-15th–16th-century pottery was retrieved from its fill. Although no datable stratified finds were retrieved from evaluation trench 126, possible Iron Age pottery came from the topsoil.

5.17.4 In summary, features recorded in Section 25 show evidence of activity between the prehistoric and post-medieval periods, with some correspondence with the medieval/post-medieval ridge and furrow earthworks recorded in the centre of the section (LHER MLI98763).

5.18 Section 26

5.18.1 The section lies west of the A16 between Keal Cotes to the south and West Keal to the north (Figs 24 and 25). It crosses four arable fields and is 1.1 km long. In total 16 trenches were excavated, with archaeological features recorded in six. Three trenches (282, 128 and 42) recorded in the north-eastern half of section were crossed by post-medieval land drains.

5.18.2 Trench 327 revealed three postholes and a pit/posthole, all without datable evidence (Fig. 126). A concentration of archaeological features was recorded in three trenches (132, 300 and 130) in the centre of the section and were further investigated in the mitigation phase (Area 29). Trench 132 contained one ditch, four gullies and three furrows on a north to south alignment. A single sherd of prehistoric/Iron Age pot was retrieved from the ditch, which in mitigation was found to contain Late Iron Age/early Romano-British pottery. Additionally, prehistoric/Iron Age pottery was found in two of the gullies in trench 132. Two of the furrows overlapped parallel gullies which in mitigation produced post-medieval finds. Trench 300 lay parallel to trench 132 and intercepted some of the same features recorded in trench 132 and Area 29, namely three gullies and five furrows. The furrows produced possible prehistoric, Romano-British and medieval pottery; a single handmade sherd of possible prehistoric date was recovered from a pit in trench 300. The pit was truncated by two curved gullies, which contained burnt daub.

5.18.3 Trench 130 revealed two ditches and three gullies, three of which contained Romano-British pottery (some of 2nd-century date). The features were mostly on an east to west alignment, which differed to those in and around Area 29, and could represent a later phase. There is sparse evidence of Romano-British activity within the wider landscape and what there is is restricted to finds scatters, e.g.,1 km north of the section (LHER MLI40951).

5.18.4 At the northern end of Section 26, a possible gully was recorded in trench 131, and three furrows in trench 251; two of the furrows contained pottery dated to the medieval or post-medieval period. Bronze Age activity is known in the wider area, with Early Neolithic to Late Bronze Age finds in and around West Keal 1 km to the north (LHER MLI40939, MLI40940, MLI40951, MLI40961, MLI116911, MLI40762 and MLI40926), and possible Early and Middle Bronze Age finds near Stickford and Hagnaby Lock (LHER MLI41009, MLI41011 and MLI41015), 2 km and 3 km away respectively, although there was no obvious corresponding evidence from the evaluation trenches.

5.19 Section 27

5.19.1 Section 27 lies north-west of Keal Cotes and extends from the western end of Mill Lane towards the south-west, to Hagnaby Lane (Figs 25, 26 and 27). The section is 1.2 km long and crosses four arable fields. Four trenches of 13 excavated contained archaeological features. At the northern end of the section, two trenches (252 and 253) contained undated north-east to south-west aligned furrows that matched linear anomalies detected by the geophysical survey (Headland Archaeology 2017b).

5.19.2 Ditches, gullies and a pit were found in trench 46 (Fig. 127), and the site was further investigated during mitigation (Area 40). An alluvial deposit was recorded in trench 46, with some features sealed beneath it and others cut through it; these results were corroborated by the mitigation findings. Datable pottery is of prehistoric–Iron Age and early Romano-British date, the latter including samian ware. Three ditches and one gully were investigated in trench 137 at the southern end of Section 27 (Fig. 128). Prehistoric/Iron Age pottery and animal bone was retrieved from one of the ditches.

5.20 Section 28

5.20.1 Section 28 is located between Hagnaby Lane and Staunch Lane, between the village of Stickford and the former runway of RAF East Kirkby (Figs 27 and 28). The section is 1.1 km long and crosses four arable fields. Eleven trenches were excavated, with seven of them exposing archaeological features.

5.20.2 Trench 47 revealed an east–west ditch (Fig. 129). A north-west to south-east aligned ditch in trench 136 contained two sherds of Iron Age–Romano-British pottery. Three ditches, three gullies, a pit and a pit/gully were recorded in trench 48. One of the pits proved to be a ditch when fully exposed in mitigation (Area 30) and formed the earliest boundary investigated on site. Datable finds retrieved during the evaluation tallied with the evidence from the mitigation of Area 30: prehistoric–mid-Romano-British pottery. Three linear features recorded were visible on the geophysical survey (Headland Archaeology 2019) which identified east–west furrows and a possible rectangular field boundary. One ditch was investigated in trench 329 and was found to contain a clay pipe stem.

5.20.3 Trench 138 exposed a gully and a ditch, both aligned north-west to south-east and undated (Fig. 130). Two ditches, two pits and two gullies were recorded in trench 135. One of the gullies was curved and was further investigated during mitigation (Area 41), when it was found to contain briquetage or pottery fragments, possibly of prehistoric date, along with animal bone. A ditch was also further investigated in mitigation, and was also visible within the geophysical survey results (Headland Archaeology 2017b and 2019) following a curved alignment. Interventions during both the evaluation and mitigation stages recovered prehistoric/Iron Age pottery from the feature.

5.20.4 Trenches 140 and 139 both partially overlapped with Area 31. Trench 140 revealed one ditch and three gullies. Datable evidence was only retrieved from the ditch: prehistoric/Iron Age pottery. The features recorded did not continue into the mitigation area and were not detected by the geophysical survey (Headland Archaeology 2017b). The geophysical survey was also unsuccessful in revealing features recorded in trench 139, which included two pits, two gullies and a ditch. The ditch and one of the gullies contained Middle–Late Iron Age pottery. Although the excavated features were not visible continuing into the mitigation area, they were most likely associated with activity there, as the mitigation recovered pottery of the same date. Within Section 28 both Bronze Age activity (HER MLI41011, MLI41015 and MLI41024) and Romano-British settlement (LHER MLI41023) have been identified; the

excavated archaeological features add further detail to the existing picture of a broad spread of prehistoric and Romano-British activity in the local landscape.

5.21 Section 29

5.21.1 Section 29 lies between two minor roads (Drain Bank and Staunch Lane) that converge on Hagnaby Lock, which lies immediately south of this, the southernmost section of Zone 2 (Figs 28 and 29). The section lies across two arable fields and is 0.3 km long. Three out of ten trenches contained archaeological features. Trench 286 revealed an undated north-west to south-east aligned ditch. Three pits and a north-west to south-east aligned ditch, all undated, were recorded in trench 151 (Fig. 131). Both ditches were recorded cutting the subsoil and most likely date to the medieval or post-medieval period.

5.21.2 Two trenches were dug in Section 29 during the evaluation of Zone 3 (trenches 350 and 351), the results detailed in the report on those works (Wessex Archaeology 2021c). In brief, trench 350 contained a recently infilled field boundary and trench 351 was blank.

6 MITIGATION EXCAVATIONS

6.1 Introduction

6.1.1 A summary of the main features and stratigraphic narrative, so far as it can be discerned at this stage, is presented for each excavation area. These were termed Set Piece Excavation (SPE) areas or Strip, Map and Record (SMR) areas during the planning and fieldwork stages, but for the sake of simplicity the term 'Area' is used in the text below. A more detailed summary of the stratigraphic units ('contexts') recorded during the fieldwork is presented in Volume 2, Appendices 6–7.

6.1.2 The results of the archaeological investigations are presented in geographic order from Haugh to Bicker Fen, that is, from north-east to south-west along the scheme. The sites are principally referred to by their 'Area' numbers; within Zone 2, the numbering scheme does not reflect the geographic sequence of sites along the scheme, although it does for Zone 3 (see Figs 1–2).

6.1.3 Features that were investigated by three or more interventions have been allocated group numbers that have been drawn from the main context numbering run of the sites in which they were excavated. Where dimensions are given for grouped features these usually convey the average or mode, as appropriate. Where two dimensions are given, this is to convey width x depth. Waterworn linear features less than 0.8 m wide have generally been interpreted as gullies; linear negative earthwork boundaries wider than 0.8 m are mainly interpreted as ditches. Records in the primary archive have not been amended to reflect this distinction.

6.1.4 The site and feature descriptions in this section draw on the results of the finds (section 7) and environmental (section 8) assessments where pertinent. To spare repetition, in such cases the individual assessments are not generally referenced in the text, but can be located and consulted easily enough.

Table 2 Abbreviations used in the text

Abbreviation	Definition
ABG	Associated Bone Group
CBM	Ceramic Building Material
DBA	Desk-based Assessment

ha	Hectares
LOE	Limit of Excavation
m OD	Metres (above) Ordnance Datum
ON	Object Number
NGR	National Grid Reference
OS	Ordnance Survey

Summary of archaeological features and deposits

Table 3 Summary of excavation areas (presented N–S along scheme)

Area	Agriculture	Habitation	Mortuary	Craft/ industry	Figure (site plan)	Civil Parish	Zone
5	✓			✓	30	Ulceby with Fordington	Zone 2
7	✓	✓			31	Langton by Spilsby	
35		✓			32		
8	✓	✓✓	✓	✓	33, 34		
9			✓✓		35	Dalby	
36	✓				36	Langton by Spilsby	
17	✓✓				37		
33	✓				38		
18	✓✓✓✓✓				39, 40	Sausthorpe	
37	✓✓	✓			41		
19	✓				42		
20	✓				43		
21	✓✓				44	Raithby	
38	✓				45		
22	✓	✓			46		
11	✓				47		
12	✓✓				48		
24	One undated ditch				49	West Keal	
25	✓				50	East Keal	
26	✓✓				51		

Area	Agriculture	Habitation	Mortuary	Craft/ industry	Figure (site plan)	Civil Parish	Zone
39	✓	✓			52		
28/34	✓ ✓	✓			53		
29	✓ ✓ ✓ ✓				54	West Keal	
40	✓ ✓	✓ ✓			55, 56		
30	✓ ✓ ✓ ✓				57	Stickford	
41	✓	✓	✓		58		
31	✓				59		
50	✓				60	Holland Fen with Brotherford	Zone 3
51	✓				61	Amber Hill	
52	✓ ✓			✓	62, 63	Swineshead	
53	✓ ✓		Undated CRD	✓	64, 65		
54	✓ ✓		Undated unurned burial		66		
55	✓ ✓			✓	67, 68		
56	✓		✓		69		
57	✓				70	Little Hale	
58	✓				70		
59		Undated roundhouse			71		
60/61	✓ ✓ ✓ ✓				72	Donington	

KEY:

✓ Earlier prehistoric
✓ Iron Age
✓ Romano-British
✓ Anglo-Saxon
✓ Medieval
✓ Post-medieval

CRD = cremation-related deposit

Methods of stratigraphic assessment and quantity of data

6.1.5 All hand written and drawn records from the excavation have been collated, checked for consistency and stratigraphic relationships. Key data has been transcribed into a database, which can be updated during any further analysis. Preliminary phasing of archaeological

features and deposits was principally undertaken using stratigraphic relationships and the spot dating from artefacts, particularly pottery.

6.2 Area 5

Introduction

6.2.1 Area 5 occupied 0.46 ha centred on NGR 540832, 374077, and lay on a gentle slope, which descended from 95 m OD at the north-east limit of excavation (LOE) to 92.5 m OD at the south-west LOE (Fig. 132). The field in which Area 5 lay was active agricultural land.

6.2.2 The geophysical survey detected curvilinear ditches and discrete features (Headland Archaeology 2019, figs 24–25; 2017b, fig. 27). Trench evaluation (NAL trench 313) uncovered an undated ditch and a furrow.

6.2.3 Area 5 was stripped of overburden in January 2021. The work exposed a curvilinear gully with Romano-British pottery, a chalk quarry pit, a trackway, ditches and a hedgerow marked on historic mapping as a parish boundary (South Thoresby/Ulceby with Fordington) (Fig. 30).

Soil deposit sequence

6.2.4 The geological substrate is recorded as Chalk of the Welton formation (BGS 2022), which presented on site as a reddish-brown clay with abundant chalk.

6.2.5 The geological substrate lay directly beneath a 0.35 m-deep dark brown ploughsoil.

Romano-British

6.2.6 A group of ditches (500039) at the north-eastern LOE correlates with the corner of a plot of land detected by the geophysical survey in the wider area. The north-west to south-east aligned arm of the plot boundary is defined by a single anomaly within the geophysical survey whilst the north-east to south-west arm appears double-ditched. The excavated results from Area 5 match this arrangement.

6.2.7 Within Area 5, the outer ditch was artefactually sterile. The inner ditch showed evidence of recutting (Fig. 73.1) and was found to contain a small amount of Romano-British pottery. The most chronologically distinctive sherds were of the mid-1st to mid-2nd century AD. A spur ditch (500017/500042; 1.2 x 0.12 m) extending from the southern part of 500039 appeared contemporary with the main boundary.

6.2.8 Around 100 m to the south-west, north-east to south-west ditch 500060 (0.90 x 0.20 m) ran from the western boundary for 14 m before terminating. A piece of Romano-British pottery was recovered from the fill.

6.2.9 A north-west to south-east aligned trackway (500061: 3.80 x 0.30 m) truncated gully 500098 close to the southern end of the site (Fig. 73.3). The trackway had two wheel-ruts (500077: 0.3 x 0.06 m; 500078: 0.3 x 0.07 m) approximately 1.2 m apart (Figs 73.2 and 133). A single sherd of possible Romano-British pottery and mid-1st to 2nd-century pottery was recovered from the fill along with a small iron tool and animal bone. The trackway extended beyond the site limits in both directions, running towards a modern north–south aligned hedgerow (500101) to the north-west which was partially removed during stripping of the site. Interventions do not show a clear stratigraphic relationship between trackway and hedgerow, but the trackway is assumed to be an earlier feature due to the artefacts it was found to contain, although these may have been residual.

Post-medieval

6.2.10 Feature 500036 represents the edge of a chalk quarry pit (or an access track serving the same) most of which lay beyond the eastern LOE. This quarry pit is marked on historic mapping and was visible as an earthwork to the east of the site at the time of the excavation (Fig. 30). Feature 500036 measured 6.6 m wide and up to 0.5 m deep. Two wheel-ruts (500070: 0.11 x 0.03 m; 500071: 0.11 x 0.02 m; Fig. 134) were recorded on the base of the feature; they were 1.5 m apart and aligned south-west to north-east, i.e. towards the main part of the quarry pit. Feature 500036 had three fills, with the upper fill containing a medieval horseshoe nail and fired clay.

6.2.11 Hedgerow 500101 correlates with a north–south aligned hedgerow visible on 19th-century historic mapping marking the boundary between the parishes of South Thoresby and Ulceby with Fordington. The hedgerow was still visible in the landscape at the time of fieldwork.

6.2.12 Ditch 500099 (10.9 x 0.42 m) was aligned north–south immediately west of hedgerow 500101 and is assumed to have formed part of the same boundary. It contained a horseshoe of possible medieval date.

Undated

6.2.13 A curvilinear feature (500015: 1 x 0.29 m) was exposed to the east of ditch group 500060. It was 'reverse C'-shaped in plan and had a projected internal diameter of 3.60 m. Its sides and base were irregular; no artefactual evidence was recovered from the feature.

6.2.14 At the southern end of Area 5, a north-west to south-east aligned gully (500098: 0.69 x 0.35 m) extended beyond the LOE in both directions. The gully had been cut by pit 500055 (2.4 x 1.07 x 0.31 m). No datable evidence was found in either of these features. At its north-western end, the gully had also been cut by trackway 500061 (Fig. 73.3). The trackway contained Romano-British pottery, but not in sufficient quantities to securely date the feature. In the absence of any dating evidence from gully 500098, its chronology cannot be viewed as secure either.

6.3 Area 7

Introduction

6.3.1 Area 7 occupied 0.59 ha, centred on NGR 539726, 372792. The highest of the areas excavated, the stripped ground surface sloped down from 101 m OD at the northern end of Area 7 to 97 m OD at the southern end (Fig. 135). The field in which the site lay was being used for oilseed rape cultivation when the fieldwork occurred.

6.3.2 The geophysical survey revealed a rectangular enclosure containing a ring gully, as well as linear and discrete features (Headland Archaeology 2017b, fig. 36; 2019, figs 27–28). No evaluation trenches overlapped with Area 7.

6.3.3 Area 7 was stripped of overburden in June 2021. The works revealed ditches, gullies and other features that tallied with the remains detected by the geophysical survey (Fig. 31). Other geophysical anomalies of potential archaeological origin were found to relate to changes within the geology.

Soil deposit sequence

6.3.4 The geological substrate is Chalk of the Welton formation, with no superficial deposits recorded (BGS 2022). Many of the features initially thought to be of archaeological origin proved to be natural solution holes when investigated. The head of the bedrock was

encountered approximately 0.5 m below the existing ground surface and comprised a compact mid-yellow silty clay with abundant chalk inclusions.

6.3.5 Fairly compact mid-brown silty clay subsoil with frequent chalk gravel inclusions was intermittently present; it was around 0.20 m thick. A fairly loose dark brown silty clay ploughsoil with frequent chalk inclusions, 0.33 m thick, covered the site.

Prehistoric/Iron age

6.3.6 Ditch 700295 (2.60 x >1.20 m; Fig. 74.8) was located at the northern LOE. It was aligned north-east to south-west, and had a 'V'-shaped profile. It contained worked flint, but no other datable finds. Environmental samples from the ditch contained barley and spelt wheat (alongside charred remains of a variety of wild plants); the presence of these varieties of cereal suggest this feature was part of the prehistoric/Iron Age activity in Area 7. The feature matched a prominent geophysical anomaly.

6.3.7 Some 60 m to the south, ditch 700296 (0.90 m and 0.24 m) crossed the northern part of the site on a north-west to south-east alignment. With no finds other than a broken flint flake and other debitage from the feature, an early date is suggested.

6.3.8 Two north-west to south-east running ditches 700297 and 700300, which lay 42.3 m apart, formed part of a rectangular enclosure detected by the geophysical survey in the wider area (Headland Archaeology 2019). The ditches were an average 2.4 m wide and 1.05 m deep, with straight, moderately steep sides, a flat base, and five fills each (Fig. 74.4). Animal bone, prehistoric pottery (some sherds of definite Iron Age date) and a possible rubber stone were retrieved from ditch 700300; pottery of possible late Romano-British date was retrieved from the stratigraphically later fills of ditch 700297. Boundary ditch 700300 cut across two north-east to south-west aligned gullies (700177: 0.6 x 0.15 m and 700179/70020: 0.7 x 0.35 m) which contained prehistoric pottery (Fig. 74.5).

6.3.9 Within the enclosure defined by ditches 700297 and 700300 was a roundhouse and associated pits and gullies. The roundhouse was defined by two curvilinear gullies (700299: 0.96 x 0.22 m) that extended from the western LOE; it had a 3 m-wide east-facing entrance and four internal features. The roundhouse correlates with a ring gully visible on the geophysical survey data; its internal diameter appears to be around 10.5 m, although most of this lay beyond the stripped area. The southern gully had evidence of maintenance as it had been recut (Fig. 74.6). Pottery of prehistoric appearance was retrieved from ring gully 700299; the ceramics from the recut could be more closely dated to the Middle to Late Iron Age.

6.3.10 Two postholes were located 1.1 m apart at the entrance of the roundhouse and most likely had a structural function. Posthole 700287 to the south measured 0.92 long and 0.62 m wide with a depth of 0.27 m; posthole 700281 was similar in size (0.97 x 0.6 x 0.25 m), with animal bone retrieved from its fill. Two other internal features were investigated: a posthole (700286: 0.26 x 0.23 0.18 m) and a pit (700283: 0.36 x 0.56 x 0.16 m) which contained possible prehistoric pottery.

6.3.11 A ditch (700302: >6 x 1.02 x 0.41 m) curved from the western LOE towards the north-east where it terminated. The ditch cut the northern gully of the roundhouse, and would appear to post-date the roundhouse's use. Prehistoric pottery was retrieved from its fill.

6.3.12 A little further north, an 8 m-long ditch (700298: 2.20 x 0.68 m; Fig. 74.7) ran from the western LOE towards the north-east where it terminated. The ditch was within the rectangular enclosure; it had three fills, artefactually sterile apart from one flint flake. The

ditch is visible within the geophysical data from the wider area, which shows it continuing to the south-west, beyond the stripped area, and running up to roundhouse 700299.

6.3.13 South of roundhouse 700299 was an oval pit (700171/700197: 2.42 x 0.55 x 0.16 m) visible in the geophysical survey data. Prehistoric pottery was collected from its fill.

6.3.14 A pair of pits, 700222 (0.6 x 0.52 x 0.1 m) and 700227 (0.73 x 0.68 x 0.13 m) lay further south of roundhouse 700299. Animal bone was recovered from pit 700227.

6.3.15 Approximately 30 m south of the southern edge of the enclosure detected by the geophysical survey lay pit 700024 (1 x 0.90 x 0.39 m; Fig. 136), which was found to contain Middle to Late Iron Age pottery. Some 30 m further south, ditch 700006 (1.54 x 0.81 m) crossed the southern end of the site on an east to west alignment. It contained a single sherd of prehistoric or Romano-British pottery.

Undated

6.3.16 An 'L'-shaped ditch (700201: >7.4 x 1.42 x 0.21 m; Fig. 137) was located north of boundary ditch 700297. Both ends extended beyond the western LOE and correlated with the geophysical survey data. This and a small group of pits and gullies nearby produced no datable evidence.

6.3.17 South of ditch 700300, which formed the southern edge of the enclosure detected by the geophysical survey, were numerous undated pits, postholes and ditches. The ditches are described below, in north–south order.

6.3.18 A recut ditch, 700301, ran north-west to south-east and correlated with a ditch visible in the geophysical survey data (Fig. 74.9). The ditch was very irregular: the northern intervention revealed a 'V'-shaped profile (1.35 x 0.55 m) recut by a shallower feature (1.6 x 0.2 m), whereas the southern intervention revealed a shallow, wide, original profile (1.8 x 0.2 m) with a narrower recut (1.3 x 0.15 m).

6.3.19 Ditch 700052 (1 x 0.5 m) ran north-west to south-east, had a 'V'-shaped profile and cut three earlier features.

6.3.20 Immediately to the south was a 'belt' of four ditches and gullies (0.39–2.17 m wide by 0.20–0.54 m deep), although these features were of doubtful archaeological provenance and may have been natural channels and fissures in the geological substrate.

6.3.21 To the south, gully 700014 (0.66 x 0.26 m) extended for 2.9 m from the eastern LOE before terminating.

6.3.22 Running along the southern LOE was north-west to south-east gully (700020/700124: 0.35–0.94 x 0.11–0.23 m), which cut a shallow gully (700126: 0.36 x 0.05 m) that extended from the south-western corner of site.

6.3.23 Details of the undated discrete features that lay to the south of enclosure ditch 700300 are tabulated below. These appear on Fig. 31 but are not individually labelled.

Table 4 Undated pits and postholes south of enclosure ditch 700300

Feature	Dimensions (L x W x D) (m)	Shape

Pit 700011	0.32 x 0.24 x 0.18	Sub-oval with vertical sides and irregular/undulating base.
Pit 700017	0.44 x 0.62 x 0.15	Sub-circular with irregular sides and base.
Pit 700054	0.18 x 0.22 x 0.05	Sub-oval with straight moderate sides and a flat base.
Pit 700056	Diam. 0.26 x 0.09	Circular with concave sides and undulating base.
Pit 700058	0.61 x >0.25 x 0.12	Sub-oval with concave sides and base.
Pit 700061	Diam. 0.70 x 0.20	Sub-circular with irregular sides and base.
Pit 700064	0.90 x 0.50 x 0.11	Sub-oval with irregular sides and base.
Pit 700083	1.40 x 0.50 x 0.20	Irregular with irregular sides and base.
Pit 700098	0.80 x 0.50 x 0.22	Sub-oval with moderate straight sides and irregular base.
Pit 700102	0.97 x 0.44 x 0.20	Sub-oval.
Pit 700117	0.64 x 0.39 x 0.24	Sob-oval with concave sides and a V-shape base.
Pit 700130	1 x 0.70 x 0.10	Sub-oval with moderate concave sides and U-shapes base.
Pit 700143	2.45 x 1 x 0.45	Rectangular with irregular sides and flat base.
Pit 700168/700128	3 x 1.08 x 0.38	Linear with moderate irregular sides and concave base.
Pit 700192	1.50 x 0.50 x 0.30	Sub oval with steep straight sides and irregular base.
Posthole 700085	0.17 x 0.17 x 0.12	Circular with steep concave sides and base.
Posthole 700087	0.50 x 0.40 x 0.12	Irregular with steep straight sides and concave base.
Posthole 700089	0.25 x 0.15 x 0.08	Oval with moderate straight sides and concave base.
Posthole 700100	Diam. 0.20 x 0.10	Circular with moderate concave sides and base.

6.4 Area 35

Introduction

6.4.1 Area 35 occupied 0.17 ha centred on NGR 539608, 372426. The stripped ground surface descended slightly from 96 m OD at the northern LOE to 95 m OD at the southern LOE. The field in which Area 35 lay was flat, active agricultural land.

6.4.2 Geophysical survey of the site and its immediate vicinity recorded linear and discrete anomalies of possible archaeological origin (Headland Archaeology 2017b, fig. 39; 2019, fig. 28). Evaluation trenching (NAL trench 61) here revealed a possible quarry pit, furrows and ditches. Additionally, seven postholes were recorded, with one (6107) containing pottery of prehistoric, possibly Iron Age, date.

6.4.3 Area 35 was stripped of overburden in June 2021. The work exposed three north-west to south-east aligned boundaries, as well as numerous pits and postholes (Fig. 32). Few obvious patterns can be discerned in the distribution of the discrete features, but one four-post structure is proposed, as well as a more tentative post-built rectangular structure. The great majority of features are undated. Finds include prehistoric pottery as well as some

sherds possibly dating to the 5th–8th century AD. One probable pit that continued beyond the LOE is clearly post-medieval.

Soil deposit sequence

6.4.4 The geological substrate is recorded as Chalk of the Ferriby formation (BGS 2022; Fig. 138). The head of this material was typically encountered 0.2–0.3 m below the existing ground surface and comprised mid-yellowish brown silty clay with abundant chalk inclusions. Covering the site was dark brown topsoil.

Prehistoric

6.4.5 Extending from the LOE close to the south-eastern corner of the site was posthole 350019 (0.44 x 0.62 x 0.26 m). It contained a dark greyish brown fill with charcoal and a small group of handmade sherds of possible prehistoric date. Environmental sampling allowed the charcoal from the feature to be identified as oak stemwood; it is in good to excellent condition.

6.4.6 Ten other pits and postholes to the south-west of posthole 350019 proved to be artefactually sterile, and it is not known whether or not that feature was associated with them, although it does lie on the same projected north-east to south-west alignment that some of them appear to follow.

Anglo-Saxon

6.4.7 A little over 25 m to the north of posthole 350019 lay large, oval, flat-based pit 350119 (1.90 x 1.77 x 0.44 m; Fig. 139). A small group of pottery, mostly consisting of thin-walled sherds with incised decoration of possible 5th–8th-century date, was recovered from its single fill. Animal bone was also found within this feature.

6.4.8 Less than 5 m to the north-east, posthole 350047 (0.77 x 0.46 x 0.28 m) also produced a sherd of the same potential date. Both features contained brown clayish silt fills, although that within 350047 was slightly greyer.

6.4.9 A further 20 m to the north-east, posthole group 350177 formed a sub-square four-post structure measuring 3.3 x 3.2 m. The postholes ranged in diameter from 0.35 m to 0.55 m and were 0.28 m deep on average, with straight sides and concave bases; two contained postpipes. A single sherd of coarse quartz-gritted pottery of possible 5th–8th-century date was recovered from the posthole defining the feature's north-western corner, with a small handmade sherd of uncertain (?prehistoric) date from the posthole at the north-eastern corner. The north side of this structure contained an 'additional' feature, pit 350102 (1.07 x 0.70 x 0.05 m), although to judge by its form and fill (a chalky mid-greyish brown silt unlike the dark grey brown clay loam recorded filling the other features) it is likely that pit 350102 was an unrelated feature.

Undated

6.4.10 Three linear features crossed the site on a broadly north-west to south-east alignment. From north to south these were: ditch 350068/350112 (>17.8 x 1.22 x 0.41 m), gully 350107/350143 (9.5 x 0.23–0.46 x 0.07–0.12 m) and gully 350033/350041; (>16.5 x 0.46–0.60 m x 0.32 m; Fig. 75.10). None contained any finds. They shared the alignment of extant field boundaries, which might imply that they were of no great age although this is by no means certain.

6.4.11 Ditch 350068/350112 had been cut by two of many of the pits/postholes that were recorded on the site. These particular features had an average length of 0.70 m, width 0.56 m and

depth 0.22 m; neither contained any dating evidence. Gully 350107/350143 had also been cut by a later feature, pit 350193 (4.5 x 2.6 x 0.33 m; Fig. 75.11), but this too was devoid of finds.

6.4.12 Only four of the remaining pits or postholes on the site contained finds (other than pottery, which have already been described). From north to south these were:

- posthole 350091 (diam. 0.5 m x 0.14 m) contained animal bone;
- pit 350173 (1.84 x 1.05 x 0.35 m) contained animal bone;
- pit 350161 (1.81 x 1.52 x 0.34 m) contained animal bone; and,
- pit 350127 (0.58 x 0.48 x 0.23 m) contained animal bone.

6.4.13 The remainder of the discrete features investigated on the site proved to be artefactually sterile. No clear patterns can be discerned in their distribution. To the north of four post-structure 350177, a group of seven postholes (collectively 350194: 0.22–0.54 x 0.21–0.5 x 0.04–0.16 m; Fig. 75.12) possibly defined a rectangular post-built structure measuring >5 m long and 3 m wide, with associated internal posthole 350135, although this is not especially convincing, and other postholes are present in the vicinity. It is possible that the narrowness of the window onto the archaeological horizon provided by the stripped area prevents identification of further viable pit/posthole groupings.

6.4.14 Situated towards the northern end of the site, undated postholes 350094 (0.46 x 0.3 x 0.11), 350097 (diam. 0.54 x 0.24 m) and 350170 (0.6 x 0.5 x 0.23 m) were sampled and found to contain wood charcoal in good to excellent condition.

Post-medieval/modern

6.4.15 A probable pit extended from the eastern LOE at the north-eastern corner of the site (350147: 5.43 x >1.34 x 0.55 m); slag, CBM and clay tobacco pipe were recorded in its lower fill.

6.5 Area 8

Introduction

6.5.1 Area 8 occupied 0.58 ha and was centred on NGR 539633, 371395. The stripped ground surface sloped down slightly from 97 m at the northern LOE to 93 m OD at the south-eastern LOE. Area 8 spanned two extant agricultural fields on the summit of Langton Hill, 800 m west of the A16, where it runs between Ulceby Cross and Partney.

6.5.2 The geophysical survey revealed clear evidence of a system of enclosures and linear anomalies forming a ‘ladder’ pattern corresponding well with known cropmarks (Headland Archaeology 2017b, fig. 37; 2019, 9, fig. 30). No archaeological remains were found during evaluation works (NAL trench 85), with the trenching array designed to avoid the area of concentrated archaeological features that the remote sensing had detected.

6.5.3 Area 8 was stripped of overburden in January 2021, with the northern LOE extended by 20 m because of features continuing in that direction. The works exposed a fairly dense concentration of ditches, gullies, pits, postholes and two probable crop-dryers (Figs 33 and 34). Some of the postholes formed part of an alignment of four-post structures. The range of pottery present spans the 1st century AD until the very end of the Roman period, with occupation of the landscape in the 3rd and 4th centuries AD particularly well attested, and

a few groups containing examples of types diagnostic of the final phase of Roman pottery production. Most of the environmental evidence from Area 8 comprises crop-processing by-products characteristic of a Late Iron Age/Romano-British date, and is indicative of domestic settlement activities. Additionally, prehistoric activity was recorded, in the form of discrete features containing pottery of the period, worked flint or environmental assemblages characteristic of an earlier prehistoric date.

Soil deposit sequence

6.5.4 The geological substrate is mapped as chalk of the Ferriby formation (BGS 2022), with no superficial deposits recorded.

6.5.5 There were two very distinct geological 'naturals' observed during fieldwork. Located in the central third of the site was a dark reddish brown silty clay with abundant chalk inclusions and solution holes, whilst elsewhere it comprised a mid-yellow sandy clay. The geological substrate lay directly beneath a dark brown silty clay ploughsoil, which was 0.45 m deep.

Prehistoric

6.5.6 At the northern end of the site, just south of where evaluation trench 85 had been dug, a flint scraper was found in posthole 800240 (diam. 0.3 m x 0.08 m deep). No other finds were present within this isolated feature.

6.5.7 A small cluster of pits and other discrete features lay 15 m to the south. All were artefactually sterile, apart from pit 800186 (0.25 m diam. x 0.26 m deep), which contained a small group of coarse quartz-gritted handmade pottery sherds of prehistoric date.

6.5.8 Around 35 m further south, worked flint was recovered from curvilinear pit 800308 (3 x 0.8 x 0.37 m).

6.5.9 A cluster of pits (800098) was located 10 m to the south of curvilinear pit 800308. Two of these merged to form a 'dumbbell'-shaped arrangement (1.60 x 0.51 m). A single oxidised quartz-gritted sherd of prehistoric date came from a sample taken from one of the other features within the group. A larger feature 3 m to the south proved to be of geological origin when excavated.

6.5.10 A north-east to south-west alignment of pits (800099) was seen to the south of pit cluster 800098. It consisted of four features (0.3–0.8 m in diameter with depths ranging from 0.14 m to 0.27 m), one of which (800068) contained a flint scraper. Other than a single abraded handmade pot sherd of probable Iron Age date retrieved from a sample taken from another pit, 800006, no other finds were recovered. The alignment may have continued to the south-west, beyond the LOE, but appeared to terminate to the north-east, within the site confines. The pits lay 1.7–3.6 m apart. The arrangement of pits was parallel with undated gully 800050/800052, located a short distance to the east.

6.5.11 Around 75 m to the south-east, investigation of pit 800371 (diam. 0.62 x 0.28 m deep) recovered flint tools and shell-gritted pottery of earlier prehistoric appearance from the dark brownish grey sandy silt fill. An Early Neolithic date seems very likely for the worked flint from this feature.

6.5.12 A further 135 m to the south-east lay pit 800394 (0.81 x 0.70 x 0.17 m) which contained worked flint.

6.5.13 Finds of struck flint were relatively numerous in Area 8, with the site supplying the largest number of worked flints (76) of any of the excavation areas, equating to roughly one-quarter of the total flint assemblage from the mitigation sites in Zones 2 and 3.

?Prehistoric posthole groups in northern part of site

6.5.14 In the northern part of Area 8 were six post-built structures set out along a broadly NNW–SSE alignment. A further two lay towards the site's eastern limit. These are described immediately below. All were artefactually sterile unless stated otherwise.

6.5.15 The northernmost example was a square four-post structure (800134) that measured 2 x 2 m. Its constituent postholes had a diameter of 0.16–0.26 m and depth of 0.04–0.24 m. To the west, close to the LOE, was a number of other undated pits and postholes.

6.5.16 The second example (800150) lay 5 m to the south and measured 3.6 x 3.3 m with postholes 0.5–0.66 m in diameter and 0.07–0.5 m deep. This also resembled a four-post structure; a fifth posthole on the structure's eastern side was shallower than the others and may not have had a load-bearing function (or been related). A layer of greyish brown clay sand was also recorded on the north side of the arrangement.

6.5.17 Immediately to the south-east was four-post structure 800230 (2.6 x 2.4 m); its postholes were 0.2–0.5 in diameter and 0.1–0.25 m deep. The south-western posthole was truncated by gully 800236 (>4 x 0.30 x 0.10 m), which terminated in the centre of the structure.

6.5.18 Approximately 5 m to the south-east lay four-post structure 800233. This measured 3.2 m square and its postholes were 0.6–0.82 m in diameter and 0.36–0.55 m deep. A small group of handmade shell- and quartz-gritted pottery sherds was recovered from the two northern postholes, the former material being possibly prehistoric in date and the latter possibly Romano-British.

6.5.19 The next group of postholes (800081) was much less regular in plan. It comprised 11 separate features. Discernible within their layout is a short (5.8 m) north-east to south-west aligned fenceline with a four-post structure to its south-east, although these are more speculative than the other arrangements. The constituent features were 0.4–0.9 m in diameter and 0.19–0.59 m deep (Fig. 76.16). Two quartz-gritted pottery sherds of possible Iron Age to Middle Saxon date were retrieved from the north-east posthole of the possible four-post structure. Two more quartz-gritted sherds, of possible Romano-British date, along with slag and a single thin-walled handmade prehistoric sherd came from the fenceline.

6.5.20 The southernmost post-built structure of the alignment appeared much more regular in plan (800065: 2.7 x 2.6 m; postholes diam. 0.38–0.44 m and 0.2–0.28 deep). Samples from three of the constituent features contained handmade pottery sherds of possible or confirmed prehistoric date.

6.5.21 A further two arrangements of posts marked probable former structures towards the eastern limit of Area 8.

6.5.22 Posthole group 800455 lay 60 m from the south-eastern LOE. Its constituent features ranged between 0.2–0.48 m in diameter and 0.12–0.17 in depth. These postholes also appear to have defined a four-post structure, this example measuring 2.9 x 2.4 m. Worked flint was found in the north-western posthole. Two of the postholes contained the charred remains of possible oak posts.

6.5.23 At the eastern end of the site, five pits (pit group 800480: 0.6–0.8 x 0.48–0.7 x 0.11–0.26 m) formed either an incomplete rectangle, or a square with an outlier. The fills of the pits were charcoal-rich and two of them contained worked flint: the assemblage from the most north-eastern included a core and broken blade fragments; four flint tools, three flakes and some micro-debitage were found in the outlying pit (800476) to the south. Some of the worked flint from this pit group is suggestive of an Early Neolithic date. Pit 800476 also contained charred plant remains consistent with a Neolithic date (a crab apple/apple seed and abundant hazel nutshell fragments).

Romano-British ladder settlement

Principal boundaries

6.5.24 A broadly north–south aligned double-ditched trackway or boundary was the most prominent feature detected by the geophysical survey in Area 8. Evidence for archaeological activity to the west of this was generally scarce within the survey data, whereas to the east enclosed areas with reworking of internal space and boundaries were detected by the remote sensing. The results from the excavation of Area 8 match the geophysical survey results very well.

6.5.25 Ditches 800487 (1.64 x 0.48 m; Fig. 140) and 800488 (1.70 x 0.65 m; Fig. 76.13), which were set some 15.5 m apart, tally with the double-ditched boundary detected by the geophysical survey. Both contained animal bone, with pottery spanning the Late Iron Age to the mid-2nd century AD recovered from the more easterly ditch. To judge by the geophysical survey results from the wider area, an enclosure measuring at least 52 m east–west had been appended to the eastern side of the boundary. Its eastern side was initially defined ditch by 800496 (1.7 x 0.29 m), which contained animal bone and Romano-British pottery (mid-3rd–4th century). The geophysical survey data suggests the southern boundary of this enclosure lay some 30 m to the south of the stripped area, but its northern boundary may have lain within the site, where it was recorded as ditch 800486 (0.95–1.7 x 0.28–0.5 m; Fig. 76.14). This contained animal bone, along with Romano-British pottery, the most chronologically distinctive of which appeared to date to the late 2nd to 3rd century. Ditch 800486 was seen to intersect with ditch 800488, which defined the eastern side of the north–south aligned double-ditched boundary, but respected ditch 800487, which defined its western side. No clear sequence was apparent at the intersection of ditches 800486 and 800488, but if the double-ditched boundary is assumed to be the primary axis of landscape division, then it would follow that 800486 was the later feature (its construction seemingly reflecting the expansion of the enclosure westwards into the area between the two north–south boundaries). This is supported by the pottery dating evidence as, to recap, sherds from ditch 800488 spanned the Late Iron Age and mid-2nd century AD, whereas the ceramic assemblage from 800486 (which probably later crossed 800488) contained late 2nd to 3rd-century material.

6.5.26 Ditch 800488 intersected with a second boundary: right-angled ditch 800489 (0.81 x 0.19 m). Again, no clear sequence was apparent at the intersection of the two ditches, and in this instance the pottery evidence cannot help identify a sequence, as both 800488 and 800489 contained pottery spanning the late 1st to mid-2nd century AD.

6.5.27 The enclosure appears to have remained in use throughout the Romano-British period, with pottery from the 1st to late 4th century recovered from associated features. The earlier Romano-British features within the enclosure are described first below, followed by those that appear to belong to the later part of the period.

Earlier Romano-British features

6.5.28 Gully 800258 (>3 x 0.60 x 0.20 m) curved from the south-western LOE before terminating. A grey ware sherd of broad Romano-British date and a handmade sherd of general prehistoric date were retrieved from its earlier fill, and further grey ware sherds, along with animal bone and slag, were retrieved from the fill of the recut. This gully is visible in the geophysical survey data as a lozenge-shaped feature that terminates 6 m south of the LOE.

6.5.29 A pear-shaped pit (800029: 1.10 x 0.64 x 0.23 m) was recorded 6 m to the north-east of gully 800258. It contained the base of a jar dated to the mid-1st to mid-2nd century AD (Fig. 141).

6.5.30 Around 8 m further to the north-east more pits were recorded, with six forming an irregular circle some 7.5 m in diameter (although one of these pits, 800371, has been described above as a probable prehistoric feature on account of the struck flint it contained). Pits 800380 (1.2 x 0.5 x 0.25 m) and 800385 (0.82 x 0.68 x 0.13 m) both contained late 1st to 2nd-century pottery; pit 800334 (2.10 x 0.40 x 0.23 m) contained mid-2nd-century pottery.

6.5.31 Towards the eastern side of the enclosure, gully 800494 (9.6 x 0.68 x 0.37 m) may have marked some minor subdivision of its internal area during the earlier part of the enclosure's use – it contained mid-1st to mid-2nd-century pottery.

Later Romano-British features

6.5.32 A probable crop-dryer (800089: 3.38 x 2.3 x 0.75 m; Fig. 142), lay between the two ditches defining the double-ditched boundary. The feature was sub-oval in plan, with stone rubble (some chalk, some heat-affected) concentrated in its eastern part. This overlay a charred layer on the feature's base which contained chronologically non-diagnostic Romano-British pottery, CBM, slag and iron. In places, the sides of the feature were heat-blushed. Its final fill contained fragments of an unburnt human skull, deriving from an adult (35–55 years old), possibly male, alongside late 3rd to late 4th-century pottery. The profile of the environmental remains from this feature resembles that from crop-dryers.

6.5.33 Ditch 800491 (1.5 x 0.44 m) turned in on itself to form a small sub-rectangular sub-enclosure measuring a maximum of 15.2 m east–west by 7.5 m north–south. The southern part of the area enclosed by ditch 800491 contained a small patch of mid-greyish brown silty clay (probable trample). Numbered 800437, this measured 3.4 x 1.7 x 0.1 m, and had been cut by a short length of gully (800369/800423: 3.24 x 0.41 x 0.17 m) that also cut ditch 800491. Pottery of late 3rd–4th-century date was recovered from all three of these features.

6.5.34 Pottery of the same post-3rd-century date was retrieved from two further elongated pits or short lengths of gully near the later Romano-British sub-enclosure defined by ditch 800491. These lay to the north and south and were, respectively, 800399/800415 (3.7 x 0.75 x 0.23 m) and 800038 (2.8 x 0.70 x 0.15 m).

6.5.35 A co-axial grid of north–south and east–west ditches was present in the eastern part of the main enclosure area. Although the elements were intercut, with ditch 800495 (>11.3 x 0.9 x 0.40 m) being the stratigraphically earliest, followed by east–west ditch 800493 (>18 x 1.1 x 0.33 m; Fig. 76.15), which was then followed by 800492 (>16.9 x 1.12 x 0.3 m) and 800496, the fact that none of these ditches continued beyond those boundaries they cut suggests the scheme as a whole was more or less contemporary in inception, but with some features outlasting others. Certainly, all produced pottery of potential 4th-century date, apart from 800495 (the stratigraphically earliest), the pottery from which can only be attributed to the Romano-British period in general. A large pit (800382: 2.15 x 1.8 x 0.60 m) found amidst these features contained 2nd to 3rd-century pottery, as well as environmental remains that

potentially came from the rake-out of a crop-dryer. The source of this material may have lain just 3 m to the east (see below)

6.5.36 As mentioned above, ditch 800496 (which defined the eastern side of the main enclosure) also contained mid-3rd–4th century pottery and so would have stood open during this phase of activity. Ditch 800496 had a crop-dryer or oven (800465) dug into it (Fig. 143). The cut for this was broadly circular (1.4 m in diameter; 0.37 m deep) with a shallower, tapering rake-out area or flue on its eastern side. The sides (but not base) of the feature's main bowl were lined with a distinctive deposit of crushed limestone, 0.15 m thick, which appeared heat-affected in places. The feature was backfilled with a dump of limestone rubble in a greyish brown sandy silt matrix, possibly the remains of a superstructure. Finds were sparse and comprised animal bone, residual worked flint and a small assemblage of pottery, the most diagnostic of which was 2nd-century in date (and presumably therefore residual, considering the kiln/oven had clearly cut ditch 800496, which contained a medium-sized group of mid-3rd–4th-century pottery). Samples from the feature contained abundant hulled wheat chaff and germinated grains, indicative of a crop-drying function. The rake out area had been cut by a ditch (800497: >16.5 x 1.4 x 0.28 m) to its immediate east. This followed the same course as ditch 800496, and might have been its replacement, but as it contained no pottery other than a single grey ware sherd, the possibility that it was a later feature and unrelated to the main period of Romano-British activity should be borne in mind.

6.5.37 The final later Romano-British feature to be mentioned lay just beyond the main double-ditched boundary, on its western side. This was a large pit (800498: 11 x 5 x 0.72 m) that contained late 3rd to 4th century pottery, a single early prehistoric sherd, animal bone, slag and shell. The darkness of its silty clay fill and the range and quantity of its finds assemblage suggest the feature represents an accumulation of occupation-related deposits from the adjacent settlement, from a midden perhaps.

Undated

6.5.38 At the northern end of Area 8 were five postholes and pits in a north-east to south-west alignment that followed the north-western side of natural feature 800112/800304; these features were 0.27–0.64 m long, 0.27–0.42 m wide and 0.16–0.36 m deep. All were artefactually sterile.

6.5.39 Gully 800050/800052 (>18 x 1.18 x 0.25 m; Fig. 76.17) followed a north-east to south-west alignment immediately south-east of post-built structure 800065, with its southern half affected by modern disturbance. The gully correlated with a linear anomaly detected by the geophysical survey. It shared the alignment of the double-ditched boundary, but no finds were recovered.

6.5.40 Gully 800032/800034 (0.48 x 0.06–0.21 m) followed the same north–south alignment as an extant hedgeline 18 m to its east. This might imply it was part of a modern scheme of enclosure, but as Romano-British ditches followed the same course 25 m to its west, and the gully was artefactually sterile, it is best viewed as undated.

6.6 Area 9

Introduction

6.6.1 Area 9 occupied 0.17 ha centred on NGR 540507 370720, on agricultural land on the summit of Langton Hill towards the southern tail of the Lincolnshire Wolds. From this location the land drops away relatively steeply to the south and west, towards the valley of the River Lymn. A triangulation pillar (90.37 m) on the side of the A16, where it runs between Partney and Ulceby Cross, lies 54 m east of the site. Ring Holt Barrow (NHLE 1017466), a

scheduled Bronze Age bowl barrow, is situated 200 m away in the adjacent field to the south-west. The stripped ground level at Area 9 sloped relatively steeply from 88.8 m in the north to 86.5 m OD in the south.

6.6.2 The geophysical survey revealed a ring ditch, two linear features and several discrete pit-like features (Sumo Survey 2017, 4 and fig. 16). The site was not subject to trench evaluation.

6.6.3 Area 9 was stripped of overburden in May 2021, exposing a Bronze Age ring ditch, which had 22 Anglo-Saxon graves cutting into and around its northern extent (Figs 35 and 144). A Romano-British trackway was also uncovered, along with an east–west aligned medieval gully and several undated pits. The site was being used for the cultivation of fodder when the fieldwork occurred.

Soil deposit sequence

6.6.4 The geological substrate is chalk of the Ferriby formation, with no superficial deposits recorded (BGS 2022). The chalk was encountered at 0.3 m below ground level.

6.6.5 Naturally occurring infilling of hollows (900015, 900032, 900034, 900096 and 900112) in the surface of the chalk bedrock was recorded across the site, the fills consisting of pale yellowish brown silty clay.

6.6.6 Ploughsoil comprising dark brown silty clay overlay the geological substrate and all archaeological features. Finds from the topsoil include early Romano-British pottery, human bone and a copper alloy brooch; the presence of such material at this level indicates that the site has suffered plough truncation (as indicated above, the chalk natural lay only 0.3 m below the modern ground surface).

Bronze Age

6.6.7 Towards the centre of Area 9 was ring ditch 900066, which had an internal diameter of 15.5 m. The ditch had a wide ‘U’-shaped profile, measured 1.1 m across by 0.35 m deep, and contained one to two fills of silty clay and chalk fragments (Fig. 77.18). Artefacts comprising struck flint, animal bone and Bronze Age/earlier prehistoric pottery (some likely Beaker sherds with incised decorative motifs) were recovered from the ditch fills, providing an (Early) Bronze Age date. CBM (five fragments) was also recovered, although this is thought to be intrusive. The ring ditch was cut by a number of graves to the north and a Romano-British trackway to the south. The date and locale of the ring ditch, close to the Bronze Age Ring Holt barrow, suggests that this feature was also a barrow, horizontally truncated to a level where only the surrounding ring ditch remained.

6.6.8 Approximately 2.8 m south-west of the centre of the area enclosed by the ring ditch was a north–south aligned, lozenge-shaped pit (900143), similar in morphology to the Anglo-Saxon graves to the north, but devoid of grave goods or skeletal remains. The pit measured 1.92 x 0.8 x 0.18 m and contained a fill of silty clay with chalk inclusions. It is possible that pit 900143 was a grave, its location perhaps suggesting an association with the Bronze Age barrow, rather than the Anglo-Saxon cemetery.

Romano-British

6.6.9 Trackway 900050 cut across the southern extent of ring ditch 900066 on a north-west to south-east alignment (Figs 77.19 and 145). It measured around 2.8 m wide, with three to four wheel-ruts spaced 1.1–1.5 m apart at the base. Romano-British pottery (the most chronologically distinctive of later 1st–2nd-century date) was recovered within the ruts, pressed into the natural chalk bedrock. Possible prehistoric pottery was also recovered from

this feature. A drainage ditch (900030/900053) followed the trackway on its southern side; it measured almost 1 m wide and 0.35 m deep and contained up to three fills of silt and silty clay with frequent chalk inclusions.

Anglo-Saxon

6.6.10 A detailed summary of the grave goods and other objects recovered from the site can be found in section 7.6. An assessment of the human bone from the cemetery is presented in section 7.16.

6.6.11 A total of 22 inhumation graves containing 23 inhumation burials were recorded either cutting into or adjacent to ring ditch 900066 on its northern side. The graves were mainly concentrated in a 6 m-wide band that stretched across Area 9. There seemed to be some consistency in the position of the human remains within the grave cuts: the majority of the individuals were found on their side, flexed or crouched (inhumation burials 900021, 900062, 900064, 900071, 900080, 900100, 900115, 900133, 900142, 900163, 900174, 900177, 900186=900199, 900191, 900194, 900197 and 900206), though two were extended and supine (900068 and 900105). Grave orientation was variable, the majority aligned NNE–SSW or WNW–ESE, as was the direction the skeleton was facing. Skulls were generally present in the northern halves of the graves, with those individuals buried with their heads to the south forming a small minority. There was some sense of spatial organisation to the burials, with two WNW to ESE oriented rows of burials discernible. Within the northern of these two rows, five of the seven graves were aligned WNW to ESE; within the southern row, the graves ran on a perpendicular orientation (i.e., NNE SSW). A further, diverging east–west row of four graves might also be discerned immediately to the south, these all aligned approximately north–south.

6.6.12 One grave contained both a subadult and an infant, the remainder contained one inhumation, an adult in around three-quarters of cases, with a few subadults and another infant in the others. The graves were mainly evenly spaced, around 1 3 m apart. However, grave 900104, which had been dug into the top of the ring ditch, had been cut by two graves (900114 and 900067).

Table 5 Summary of Area 9 graves

Grave	Dimensions (m)	Inhumation burial	Individual	Finds	Fig.
900019	1.52 x 0.98 x 0.26	900021 & 900047	subadult 15–17yr, ??female & infant 3–5yr	Glass; copper alloy and gold objects	146, 147
900060	1.46 x 0.82 x 0.10	900062	adult >18yr	Worked flint, animal bone, iron and copper alloy objects	148
900063	1.63 x 0.77 x 0.25	900064	adult >20yr, ??female	Iron and copper alloy objects	149
900067	1.60 x 0.56 x 0.15	900068	adult 18–22yr, ??male	Pottery, worked flint, iron object	N/A
900070	1.67 x 0.76 x 0.20	900071	adult 35–45yr, ?male	Worked flint, iron and copper alloy objects	N/A
900079	1.68 x 0.60 x 0.30	900080	adult 20–30yr female	Worked bone, fired clay, copper alloy and iron objects	150

900085	1.67 x 1.01 x 0.30	900122	adult 28–34yr ??female	Pottery, iron, copper alloy and silver objects.	N/A
900098	1.74 x 0.87 x 0.29	900100	subadult 15–17yr ?female	Stone and iron objects	N/A
900104	0.58 x 0.42 x 0.05	900105	adult >18yr	Iron	N/A
900114	1.60 x 0.70 x 0.30	900115	adult 40–55yr male	Iron and copper alloy objects, pottery, animal bone (some worked)	N/A
900131	1.75 x 0.85 x 0.15	900133	adult 28–33yr male	Iron and copper alloy object	N/A
900137	1.76 x 0.83 x 0.18	900139	adult 20–30yr female	Pottery, animal bone (some worked), copper alloy, iron and ceramic objects	151
900140	1.70 x 0.70 x 0.30	900142	adult >50yr, female	Pottery, animal bone; iron objects and copper alloy	N/A
900161	1.63 x 0.73 x 0.24	900163	subadult 15–17yr, female	Pottery, animal bone (some worked), stone, glass, shell, iron and copper alloy objects	152
900172	2 x 0.72 x 0.13	900174	adult 18–22yr, male	Pottery, stone, iron objects	N/A
900175	1.74 x 0.78 x 0.43	900177	adult 35–50yr, female	Animal bone, iron and copper alloy objects, stone	153
900184	1.52 x 0.90 x 0.26	900186=900199	subadult 12–15yr	Iron, fired clay	N/A
900187	1.04 x 0.57 x 0.19	900189	infant 1.5–2.5yr	Amber, iron and copper alloy objects	N/A
900190	1.60 x 0.94 x 0.08	900191	adult >60yr, male	Iron and copper alloy objects	N/A
900193	1.57 x 0.75 x 0.40	900194	adult 28–32yr, ?female	Pottery, animal bone, iron and copper alloy objects	N/A
900196	1.52 x 0.90 x 0.38	900197	adult 35–45yr, male	Pottery, stone, CBM, animal bone, iron and copper alloy objects	154
900205	1.80 x 0.70 x 0.23	900206	adult 20–25yr, ??male	Fired clay, iron and copper alloy objects	155

6.6.13 The grave fills comprised silty clay with frequent chalk fragments. A small number of the graves also contained medium-sized chalk fragments, possibly deliberately placed over the body before the grave was fully backfilled.

6.6.14 There was an additional potential grave (900158: 1.03 x 0.60 x 0.26 m) which contained no skeletal remains but had the same morphology and was part of a regular alignment of other graves. Flint debitage was recovered from an environmental sample taken from this feature.

Post-medieval

6.6.15 A narrow gully (900046; 0.6 x 0.21 m deep) crossed the southern part of the area on an east–west orientation (Fig. 77.20). The base of a large bowl (187 g) of mid-17th to mid-18th-century date was recovered from its fill.

6.7 Area 36

Introduction

6.7.1 Area 36 occupied 0.15 ha, centred on NGR 540049, 369581. The stripped ground surface descended from 27.3 m OD in the north-east to 26.6 m OD in the south-west. The field in which Area 41 lay was agricultural land at the time of the excavation.

6.7.2 Geophysical survey revealed a strong linear anomaly and a handful of other discrete anomalies (Headland Archaeology 2017b, fig. 48). Evaluation trenching (NAL trenches 19 and 272), however, revealed three linear features and one pit.

6.7.3 Area 36 was stripped of overburden in May 2021. The work exposed two pits and a continuation of one of the linear features identified in the evaluation phase (Fig. 36). Apart from an *in situ* land drain, all features were artefactually sterile.

Soil deposit sequence

6.7.4 The geological substrate is recorded as Sandstone of the Spilsby formation, with no superficial deposits present (BGS 2022). Across most of the site, the geological substrate presented as a fairly compact mid-yellow sandy silt, and lay directly beneath a 0.40 m-thick mid-brown sandy clay ploughsoil.

Undated

6.7.5 Two pits (360005 and 360014: 0.84–0.87 m diam. x 0.21–0.37 m deep) were uncovered adjacent to the north-western edge of Area 36. They contained brownish grey sandy clay fills with frequent flecks and lenses of charcoal.

Post-medieval

6.7.6 A ditch (360009: >16.5 x 1.1 x 0.3 m) crossed the southern end of Area 36 on a north-west to south-east alignment. It had a bowl-shaped profile, with a ceramic land drain laid along its base, findings that matched the results of the evaluation. Historic mapping shows a field boundary on the same alignment as 360009 but 4 m to its south-west; it is possible that the excavated feature reflects that boundary.

6.8 Area 17

Introduction

6.8.1 Area 17 occupied 0.22 ha and was centred on NGR 539829, 369303. It lay in farmland at the base of Langton Hill, about 1.5 km north-west of Partney. The stripped ground surface descended from 26.5 m OD in the east to 22.7 m OD in the west.

6.8.2 The geophysical survey identified a number of linear features thought to represent field systems and trackways, as well as discrete anomalies representing pits (Headland Archaeology 2017b, fig. 33; 2019, fig. 33–34;). Trench evaluation (NAL trenches 15 and 18)

uncovered a pit, seven ditches and a trackway. A single sherd of Iron Age or early Romano-British pottery was recovered from one of the ditches during the evaluation.

6.8.3 Area 17 was stripped of overburden in May 2021. The work exposed ditches and gullies forming rectangular enclosures, several pits and a posthole (Fig. 37). The features that can be dated with most confidence were of Romano-British date. A later scheme of land division largely on the same alignment as its predecessor is also apparent. The chronology of the latter is poorly understood, with a medieval–post-medieval date proposed. The most unusual find from the site were the remains of a canine of 'lap dog' stature, subsequently dated to the Late Iron Age or early Romano-British period.

Soil deposit sequence

6.8.4 The geological substrate is recorded as Sandstone of the Spilsby formation, with no superficial deposits present (BGS 2022). The geological substrate was typically encountered 0.35 m below the existing ground surface and comprised reddish brown silty sand in the eastern portion of the area and yellowish silty clay to the west.

6.8.5 Covering the area was a dark brown sandy clay ploughsoil. No subsoil was observed. The landscape within which Area 17 lay is active agricultural land; extensive plough scarring was visible on the surface of the geological substrate.

Prehistoric

6.8.6 No features of earlier prehistoric date were identified, but two flint tools came from the site: a discoidal knife roughout of Neolithic date was recovered from the topsoil, and a bladelet was found in one of the ditches (170157: see below).

Romano-British

6.8.7 At the eastern end of the excavation area were three parallel north-east to south-west aligned ditches, 170158 (average 1.35 m wide x 0.22 m deep), 170161 (2.7 m wide x 0.23 m deep) and 170160 (1.2 m wide x 0.28 m deep). There was a gap of around 1.3 m between the easternmost ditch, 170160, and the middle one, 170161, before the two appeared to converge around 7 m from the northern LOE (Fig. 78.21). The stratigraphic relationship between the three ditches was unclear, especially as ditches 170158 and 170160 were parallel with each other and did not intersect. They may represent the remains of either a triple-ditched boundary line, or a boundary that was renewed on at least two occasions on a slightly different line to that which it had originally taken. The finds assemblages from the features are of little assistance in resolving their relative chronology: no finds were recovered from ditch 170158, and ditches 170160 and 170161 produced a small, group of abraded sherds attributable only to the Romano-British period in general.

6.8.8 None of these three ditches continued beyond the southern LOE. A deposit of silty sand (170146: 8 x 3.4 x 0.2 m) was recorded at their southern extent and this was cut by a north-west to south-east ditch (170157: >12 x 1.74 m x 0.66 m). Deposit 170146 may represent the disturbed remains of one or more of the ditch terminals. Ditch 170157, which aligned with a ditch investigated during the evaluation (1807) in which a sherd of handmade Iron Age or early Romano-British pottery was found, produced some Romano-British grey ware and the flint bladelet mentioned above.

6.8.9 Ditch 170157 cut a narrow gully (170113: >3 x 0.38 x 0.11 m) which continued on the same north-east to south-west alignment as the triple-ditch feature, and may have been a minor continuation of it. Two sherds of pottery of general Romano-British appearance were recovered from its fill.

6.8.10 A short gully (170159: 4 x 0.6 x 0.28 m) cut ditch 170160 (Fig. 78.22) on its eastern edge. Some pottery of 3rd–4th-century date, including sherds from the rim of a shell-gritted Dales ware jar, was recovered from the feature, and may provide a *terminus ante quem* for the triple-boundary as a whole.

6.8.11 Two pits, 170106 (1.8 m diam. x 0.22 m deep) and 170136 (1.7 x 1 m wide x 0.35 m deep), were investigated to the east of the triple-ditch feature. Pit 170136 was located at the edge of ditch 170160 and may have cut the ditch, although the relationship was unclear. It contained a stony greyish brown sandy fill and produced no finds. Pit 170106 was situated around 1 m to the south-west and contained an orangey brown silty sand fill. A single pottery sherd of Romano-British or medieval date was recovered from its fill.

6.8.12 The eastern side of Area 17 contained the main focus of Romano-British activity, although further remains from the period were found 80 m to the west, close to the western LOE. Here, ditch 170156 (0.46 x 0.18 m) extended for 6 m from the northern LOE in a south–west direction before turning north-west and continuing for 3 m where it terminated. This terminal was aligned with another section of ditch (170033; 0.7 x 0.2 m) around 1.2 m to the north-west which continued beyond the northern LOE. These ditches appear to form a corner of an enclosure, with an entrance on its south-west side. Pottery dating to the 1st–2nd century AD was found within 170156 and included a near-complete samian cup (ON 170002) recovered from the ditch terminal.

6.8.13 Ditch 170156 may have turned through 90 degrees to respect the presence of ditch 170152 (21.6 x 1.96 x 0.54 m). A textile comb made from antler (ON 170004) and a small 'lap dog' burial were found in ditch 170152. The dog returned a Late Iron Age–early Romano-British radiocarbon date (45 cal. BC–cal. AD 120; 1981±31; SUERC-108719). A similar date is possible for the comb. Four sherds from a single vessel of Romano-British or Saxo-Norman date were also found in this feature, the former date perhaps more likely in light of the radiocarbon result and comb. At its north-western end, ditch 170152 had been cut by ditch 170151.

6.8.14 Pit 170025 (1.92 m diameter x >0.98 m deep) was located a little over 5 m to the south-east of ditch 170156. Its full depth was not reached due to waterlogging and poor ground conditions. It contained at least three fills, the earliest of which comprised a greyish black sandy silt that contained the rim sherd of a mid-2nd century Roman lipped bowl. The upper fills comprised greyish and brownish sandy silt and did not contain any finds.

Medieval

6.8.15 At the western end of Area 17 were two boundaries on a north-west to south-east alignment. They are not well dated, but one post-dated Romano-British ditch 170156 and contained medieval pottery, and the other pre-dates features for which a post-medieval date has been suggested (see below). For this reason, they are described here under a 'medieval' sub-heading, but this should be seen as tentative and owing more to stratigraphic convenience than chronological certainty. From north to south, the two ditches were numbered 170153 (>14.5 x 1.2 x 0.35 m; Fig. 78.23) and 170150 (18.6 x 1.3 x 0.37 m; Fig. 157). Two small sherds from the same pottery vessel of late 13th to 15th-century date were recovered from the earliest fill in one slot dug across ditch 170153. Ditch 170150 contained no finds save for animal bone.

6.8.16 Ditch 170153 was cut by a dog-legged ditch (170154: 0.89 m wide x 0.34 m deep; Fig. 156). This appeared to turn south-east at the point where it intersected ditch 170153, however it was not possible to differentiate the two in the subsequent slot to the south-east. Ditch 170154 is likely to be a later addition to existing land divisions. Animal bone was the only

find-type recovered from this feature. Ditch 170154 was cut by a pit (170089: 2.1 x 1 x 0.66 m) which contained two silty clay fills, the earlier of which produced animal bone and fired clay.

6.8.17 At the southern LOE, ditch 170150 cut a north-east to south-west aligned ditch (170155; >3.6 x 0.86 x 0.22 m), the northward continuation of which may have been seen in trench 15 (feature 1510). However, no further evidence of it was observed during the mitigation, and ditch 170155 may have formed a 'T'-junction with ditch 170150, implying the two were broadly contemporary. Again, animal bone was the only find-type recovered from this feature.

Post-medieval

6.8.18 Two roughly north-east to south-west aligned ditches (170041: >18.1 x 2.3 x 0.58 m (Fig. 78.24) and 170151: >20.7 x 1.76 x 0.74 m) set some 50 m apart correspond with linear anomalies identified in the geophysical survey that appear to form a sub-rectangular enclosure in the wider area. The finds assemblage from ditch 170041 comprised a single sherd of mid-16th to mid-17th-century date; a fragment of modern CBM was found in ditch 170151. Located 2.6 m west of ditch 170151, ditch 170040 (>12.2 x 0.76 x 0.4 m) may, to judge by the results of the geophysical survey, have defined the eastern side of a plot of land that lay adjacent to that defined by ditches 170151 and 170041, the gap between the plots perhaps representing a trackway. Ditch 170040 contained no finds.

6.8.19 Ditches 170040 and 170151 both cut across ditch 170150; ditch 170151 also cut ditch 170152 (Fig. 78.25), their relatively late position in the site stratigraphic sequence sitting well with the suggestion that they were of no great antiquity.

Undated

6.8.20 In the central/western area of Area 17, between ditches 170154 and 170041, two small pits (170053: 0.3 m diameter x 0.08 m deep; 170057: 0.43 m diameter x 0.2 m deep) and a posthole (170055: 0.14 m diameter x 0.15 m deep) were investigated. The features were spaced roughly 10 m apart, but there did not appear to be a regular pattern to their positions. They all contained artefactually sterile light brownish grey silty clay fills.

6.8.21 Pit 170108 (3 m diameter x 0.28 m deep) was only partially exposed within the excavation area. It was located at the southern LOE just east of ditch 170152. It contained a mottled greyish and orangey brown sandy clay fill from which a small quantity of animal bone was recovered.

6.9 Area 33

Introduction

6.9.1 Area 33 occupied 0.24 ha centred on NGR 539685, 369270. The stripped area ground surface sloped down from 22.3 m at the eastern LOE to 19.2 m at the western LOE. The field in which Area 33 lay was active agricultural land; Area 33 filled much of the 215 m gap separating Area 17 to the east and Area 18 to the west.

6.9.2 The geophysical survey revealed ditches and north-west to south-east running land drains (Headland Archaeology 2017b, fig. 49; 2019, fig. 63). Trench evaluation (NAL trench 143) uncovered a land drain, two postholes, two ditches and a pit or a ditch terminal (14314) that contained Romano-British pottery.

6.9.3 Area 33 was stripped of overburden in May 2021. Archaeological features comprise undated ditches and pits (Figs 38 and 158). One isolated pit lay in the centre of the area,

the remainder of the features were concentrated to the west. All features were artefactually sterile unless stated otherwise in the description below.

Soil deposit sequence

6.9.4 The geological substrate is recorded as Sandstone of the Spilsby formation, with no superficial deposits present (BGS 2022). Two different 'naturals' were recorded on the site. The predominant one was a very compact pale yellowish clay sand with blue and orange mottling. In the south-western corner of the site, the geological substrate was recorded as a very compact mid-orangish grey sandy clay. The ploughsoil was a loose mid-brown clayish sand, 0.3 m thick.

Post-medieval

6.9.5 A parallel pair of north-east to south-west aligned ditches (330042: >31.8 x 2.50–3.72 x 0.55–0.68 m, Fig. 79.26; 330043 >23.2 x 2.08–3.42 x 0.54–0.63 m) was investigated in the western part of the site. The more westerly of the pair contained animal bone and modern roof tile. Between these two ditches lay a 'boomerang-shaped' pit (330006: 3.46 x 0.66 x 0.57 m), which had been heavily truncated by a north-east to south-west aligned land drain. Its fill was found to contain a fragment of modern drain pipe.

Undated

6.9.6 Pit 330022 (1.05 x 0.81 x 0.50 m) was located in the middle of the site, close to the southern LOE. A brownish grey sandy clay fill was recorded.

6.9.7 North-east to south-west aligned gully 330044 (0.75 x 0.23 m) extended for 6.30 m from the northern LOE, before terminating.

6.9.8 Posthole 330031 (0.81 x 0.46 x 0.30 m) was in the north-east of the area. It contained the fragmented remains of a substantial wooden post (diam. 0.38 m x 0.5 m long). This had been preserved by both waterlogging and charring. The feature may be of no great age, but given the presence of conditions allowing the preservation of the timber, it is best viewed as undated.

6.10 Area 18

Introduction

6.10.1 Area 18 occupied 0.53 ha and was centred on NGR 539444, 369160, within an open arable field north of the A158 Horncastle to Skegness road, between Sausthorpe and Partney. The stripped ground surface lay at around 20 m OD, reaching 21.2 m OD at the north-eastern end of Area 18. Overall, however, the ground surface in the wider landscape descended from south-west to north-east, towards a small stream that flows south-east to join the River Lymn. The stream, located just 10 m beyond the eastern LOE, here forms the boundary between the parishes of Sausthorpe and Partney. It is unnamed on OS mapping.

6.10.2 Area 18 was not subject to geophysical survey. Evaluation trenching (NAL trench 319; WA trench 96) revealed numerous linear and discrete features, with a small amount of prehistoric and Romano-British pottery recovered.

6.10.3 Area 18 was stripped of overburden in February 2021, with the original footprint extended by 40 m to the north-east because of the continuation of archaeological features in that direction (Fig. 39). The artefactual assemblage from the site suggests activity in this part of the landscape during the prehistoric, Romano-British, Anglo-Saxon, medieval and post-medieval periods (the stream to the immediate east of the site presumably being an enduring draw to past populations). However, the dating evidence is generally scarce, with

much mixing and residuality of finds, and there is a generally static 'template' of land division that further hinders efforts to develop a robust narrative for the site's development. An undated post-built structure set within a curvilinear ditch is amongst the stratigraphically earliest features on the site; co-axial field boundaries of potential Romano-British date lay to its east, although its relative date to them is unknown. The curvilinear ditch was succeeded by a large enclosure of potential Anglo-Saxon date, perhaps containing two post-built structures. This had been 'overwritten' by furrows and further field boundaries indicating the continued exploitation of the site for agriculture in the medieval and post-medieval periods.

Soil deposit sequence

6.10.4 The geological substrate is recorded as Sandstone of the Spilsby Formation (BGS 2022). No superficial deposits are recorded. Across most of Area 18 the geological substrate comprised a firm fine brownish yellow sandy clay, which became more clayish at the south-western end of the site.

6.10.5 No subsoil was observed; the ploughsoil covering Area 18 comprised a 0.45 m-thick layer of dark brown sandy clay.

Prehistoric

6.10.6 Adjacent to the southern LOE in the central part of the site, pit 180034 (1.7 m diam. x 0.35 m deep) contained prehistoric pottery as well as animal bone and a piece of lead in its mid-greyish brown silty sand fill. The presence of the lead might signal a later date, although an Iron Age date is not out of the question. Furthermore, the lead may be intrusive.

6.10.7 A small assemblage of struck flint was recovered from Area 18. Although this was recovered from either the topsoil or cut features of a likely or proven later date the material does indicate some activity in the local landscape in prehistory.

Romano-British

6.10.8 Field boundaries of potential Romano-British date were recorded in the eastern part of Area 18.

6.10.9 Ditch 180627 (14.8 x 1.44 x 0.4 m; Fig. 80.27) contained one piece of Romano-British CBM, two pieces of Roman pottery (one of which was a sherd of samian), along with animal bone. It formed a 'T'-junction with ditch 180626 (28.6 x 1 x 0.28 m) to the west; this contained no finds save for animal bone. A second 'T'-junction lay to the south, although little of it was seen, as it continued beyond the LOE just to the east and had been cut by ditch 180626 to the west. No finds were recovered from this second cross-member.

6.10.10 Approximately 12 m to the west of ditch 180627 lay another potentially Romano-British feature: ditch 180069 (> 28.3 x1.1 x 0.45 m) contained pottery of Romano-British date, along with animal bone, slag and lead.

6.10.11 Finally, with regard to the potential Romano-British features, two gullies on the same alignment as ditch 180627 were visible running into the northern LOE. Of the two, 180545/180549 (>5.6 x 0.5 x 0.31 m) was the earlier, having been recut on its northern side by 180628 (>6.2 x 0.44 x 0.17 m). No finds other than animal bone were recovered from this pair of gullies. It is possible that together, 180626–8 were contemporary and part of the same field system, although this cannot be proven from the available dating evidence.

Possible enclosed rectangular building at north-eastern end of the site

6.10.12 In this part of Area 18 (Fig. 40), a 'C'-shaped ditch (180039) was recorded enclosing structural remains comprising a broadly square or rectangular arrangement of postholes (180484) and a footings trench (180230) covering approximately 4 m by 4 m.

6.10.13 'C'-shaped ditch 180039 had a length of some 20 m, although it was less clear in the southern part (it was exposed following two episodes of machining). It had a shallow, dish-shaped profile (1.7 x 0.29 m; Figs 80.28 and 159) and a sandy greyish brown fill. Ditch 180039 was exposed following two episodes of machining, with discontinuities within the feature across the two footprints. Its terminals were not apparent within the site. The only find from the ditch was a large fragment of iron. Immediately to the east of ditch 180039 lay footings trench 180230 (8.0 x 1.0 x 0.4 m). This was broadly 'F'-shaped in plan and may have supported the western end of a building, for which posthole group 180484 might provide further evidence. The 20 postholes forming group 180484 were typically 0.35 m in diameter by 0.15 m deep, with 'U'-shaped profiles and grey sandy clay fills. They had an overall ENE/WSW alignment, which echoed the 'arm' of 'F'-shaped footings trench 180230 2 m to the north, suggesting an overall square or rectangular form for the postulated building, which may have been partially enclosed by ditch 180039. No artefacts were recovered from this group of structural remains. Although their date is uncertain, they appear to be relatively early for this site, as they are amongst the stratigraphically earliest features encountered.

An Anglo-Saxon enclosure?

6.10.14 Both 'C'-shaped ditch 180039 and footings trench 180230 had been cut by ENE/WSW aligned gully 180617 (0.45–1 m wide by 0.1–0.25 m deep; Fig. 80.29), which extended for 55 m across the site. Gully 180617 contained pottery of late 7th to early/mid-8th-century AD date along with animal bone. The environmental sample from gully 180617 is comparatively rich in wood charcoal; this derives from oak, cherries and hazel.

6.10.15 After a gap of 0.5 m, the westward course of gully 180617 was continued by gully 180618 (>8.9 x 0.59 x 0.12 m), which at its western end appeared to turn to the north, although its original extent had been obscured by a later ditch (180615). Due to their proximity and similarity in form, a nearby 'hockey stick' shaped gully (180629: 17.3 x 0.83 x 0.17 m) may have been associated with 180618, with one of the gullies being a replacement of the other, but the disruption from ditch 180615 (which cut both) to the original arrangement prevents any clarification. Both gullies contained a brownish grey silty sand fill, although that within 180629 was slightly darker, implying they did not fill up at the same time or by the same process.

6.10.16 It may be that together gullies 180617 and 180618/180629 defined the south-western part of a rectangular enclosure that occupied much of the central part of Area 18. A linear arrangement of postholes (collectively 180350) may represent a rectangular post-built structure that stood in the corner of this proposed enclosure. Any western side to the posthole structure would have been lost beneath ditch 180615, however. Alternatively, the postholes may have formed a fenceline that formed a sub-division within the proposed enclosure's south-western corner. Posthole group 180350 measured 10 m north–south by 6.2 m east–west and comprised 14 features, generally around 0.35 m in diameter by 0.2 m deep. A cluster of less regularly arranged postholes lay to the south of gully 180618, possibly indicating that 180350 was unrelated to the proposed enclosure. This cannot be proven one way or the other, however, as all postholes in this part of the site, whether part of group 180350 or not, were undated and none had any relationship with the gullies forming the enclosure.

6.10.17 The eastern side of the enclosure may have been marked by a more robust boundary: north-west to south-east aligned ditch 180625 (> 37 x 2.9 x 0.6 m; Fig. 80.30). This also appeared to post-date 'C'-shaped ditch 180039, although no direct relationship was investigated. Ditch 180625 contained animal bone, shell-gritted pot sherds of 8th-century date and some worked flint.

6.10.18 Approximately 15 m to the south of the south-western corner of the proposed Anglo-Saxon enclosure, other contemporary remains were recorded. Here, curvilinear gully 180624 extended beyond the southern LOE. It may have formed a ring gully with an internal diameter of 10.5 m, although this is speculative, given how little was visible. The gully itself was 0.56 m wide by 0.23 m deep with a bowl-shaped profile (Fig. 80.31). The artefactual assemblage comprised a rim fragment from a vessel of mid-8th to mid-9th-century date. Possible ring gully 180624 had been cut by an artefactually sterile ditch, 180493/180509 (>8.6 x 1.06 x 0.31 m).

6.10.19 Another potential Anglo-Saxon feature lay 61 m to the south-west, close to the western LOE. Ditch 180141 (>15.4 x 2.1 x 0.6 m; Fig. 80.32) crossed the site on a north-west to south-east alignment and contained a single pottery sherd of possible 8th-century date and four joining fragments of a loomweight of Saxon appearance. With no later material from the feature, it is feasible that it was an element within an early medieval scheme of enclosure. Ditch 180141 cut ditch 180108 (>13.3 x 1.2 x 0.14 m) to the west, and as the two formed a 'T'-junction, it is possible that they had once been contemporary, albeit with the maintenance of 180085 continuing after 180108 had become backfilled. Other than a broken flint flake, ditch 180108 was artefactually sterile. Ditch 180141 was parallel with ditch 180149 (>15.4 x 1.9 x 0.4 m), the two just 2–2.5 m apart, and both contained fills of similar greyish sandy clay. They may, therefore, have formed a double-ditched boundary, but with no finds from ditch 180149 other than animal bone, this is uncertain.

6.10.20 Overall, the abundance of free-threshing/naked wheat and rye remains in the samples from Area 18 are compatible with agricultural processing activities dating to the Anglo-Saxon period, and complement the artefactual evidence in signalling this site as a focus within the landscape at that time.

Medieval/post-medieval

6.10.21 The southern side of the proposed Anglo-Saxon enclosure (here marked by ditch 180617) had been cut by ditch 180619, which dominated the centre of the site. Ditch 180619 was up to 4.5 m wide and continued beyond both the northern and southern LOE. It was a maximum of 0.9 m deep, had a flat-bottomed profile, and contained a greyish brown sandy silt fill. Ditch 180619 produced a relatively large finds assemblage that included ceramics of Romano-British, 8th-century and later medieval (late 13th–14th century) date, a ceramic loomweight and fragments of copper alloy.

6.10.22 Ditch 180619 had been cut by ENE–WSW furrow 180616. The remains of three or four furrows were recorded crossing the site on an ENE–WSW alignment. The northernmost was furrow 180616 (> 82 x 0.65 x 0.2 m). No finds were recovered from this feature. At its eastern end, furrow 180616 appeared to respect the position of perpendicular ditch 180069 (> 28.3 x1.1 x 0.45 m), suggesting the boundary marked by the ditch (which contained nothing later than Romano-British pottery) was still evident when the ridge and furrow cultivation was occurring (though the pottery could be residual).

6.10.23 Approximately 7.5 m to the south of furrow 180616 lay gully 180077/180079 (0.37 x 0.07 m), which extended for 6.7 m from the north-western LOE. Its eastern terminal was gradual and shallow, suggesting the feature may once have extended further. No finds apart from

two abraded sherds of medieval (late 13th–15th century) pottery were recovered from this feature. Around 3.3 m south again lay furrow 180221 (>50 x 1 x 0.3 m), which contained three sherds of 5th–8th-century pottery. The eastern terminal of furrow 180221 also had a shallow and gentle profile, indicating it too may once have continued further to the east, and indeed its line was continued, after a gap of 9.6 m, by furrow 180433/180513 (21 x 1.21 x 0.16 m).

6.10.24 On stratigraphic grounds, the following features must be of medieval/post-medieval date or later, as they were recorded cutting the furrows:

6.10.25 Cutting furrow 180616 (west to east):

- 180615 (> 45 x 1.3 x 0.45 m; a ditch with prehistoric and Anglo-Saxon (8th-century) pottery, Romano-British CBM and fragments of a copper alloy strap end);
- 180623 (>23 x 1.14 x 0.43 m; a ditch with iron and animal bone, which was cut by ditch 180622, below);
- 180622 (> 22 x 1.47 x 0.48 m; a ditch with later medieval (late 14th to 15th-century) pottery and animal bone, which cut ditch 180623, above);
- 180620 (> 16 x 0.75 x 0.3 m; a gully with animal bone);
- 180150 (> 38 x 1.5 x 0.55 m; a ditch with animal bone), and,
- 180441 (> 8.6 m x 1.5 x 0.4 m; a ditch with animal bone).

6.10.26 Furrow 180221 had been cut by ditch 180151 (>15 x 1.43 x 0.55 m). This was undated, although it shared the north-east to south-west alignment of boundaries to the south-west, one of which (180085) was post-medieval (see below).

Post-medieval/modern

6.10.27 Ditch 180085 (> 23 x 1.8 x 0.46 m) crossed the south-western end of the site on a north-west to south-east orientation. Its course and position matched a field boundary shown on historic maps from the 19th century until at least the 1940s. It contained medieval pottery (late 13th–15th century), Romano-British CBM and a horseshoe from a modern heavy horse. Ditch 180098 (> 10.9 x 1.4 x 0.17 m) followed a perpendicular alignment and its terminal appeared to respect ditch 180085. Although it does not appear on the historic mapping, its layout in relation to ditch 180085 suggests that it too may be a modern feature.

6.10.28 It is proposed that these two ditches formed part of a system of field boundaries within the post-medieval period.

Undated

6.10.29 An oval arrangement of postholes (180200) close to the northern LOE is thought to represent a former structure (Fig. 160). Its long axis (which was orientated north-west to south-east) measured 6 m, and it was 3.2 m wide. It comprised 15 postholes (typically 0.35 m diam. x 0.15 m deep); apart from a piece of animal bone and a piece of lead alloy metalworking waste, all were artefactually sterile. The postholes were fairly irregularly spaced, with a 2 m wide gap in the south-western corner, possibly signalling the former position of an entranceway. Structure 180200 appeared to be of a different date to gully 180616, which crossed the area enclosed by the postholes, but with no direct relationship between the two, and no datable finds from 180200, their sequence cannot be determined.

6.10.30 Three stakeholes (collectively 180289– not illustrated) lay in the south of the area enclosed by structure 180200. It is unknown whether they were associated with the structure, or gully 180280 (5.1 x 0.35 x 0.1 m), which extended westwards from them to terminate just before substantial ditch 180619. The slope of the site was such that, had all been contemporary, gully 180280 would have drained water downslope from ditch 180619 into structure 180200. No artefacts were present in either the stakeholes or gully 180280.

6.10.31 An alignment of four pits/postholes (180062, 180043 and 180051/180053, plus one unnumbered) crossed the site on a NNW-SSE alignment towards the western end. The individual features were set 4-5 m apart; they had an average diameter of 0.6 m, with depths varying from 0.11 m to 0.32 m. The southernmost post appeared to have been replaced, but no relationship was visible between the two post settings at this point (180051/180053). No finds were present. It is possible these features represented a former fenceline. Their fills varied, however (from pale brownish grey sand to blackish grey sandy loam), which might militate against such an interpretation.

6.11 Area 37

Introduction

6.11.1 Area 37 occupied 0.22 ha centred on NGR 539265, 368928. The stripped ground surface descended slightly from 23.9 m OD in the south-west to 22.6 m OD at the north-east LOE. The field in which Area 37 lay was agricultural land at the time of the excavation.

6.11.2 No indication of archaeological remains were revealed in the geophysical survey (Headland Archaeology 2019, fig. 35). Trench evaluation (NAL trenches 21 and 95) exposed three artefactually sterile ditches.

6.11.3 Area 37 was stripped of overburden in April 2021, revealing two furrows, a ditch matching a mapped field boundary, and an undated pit (Fig. 41). Romano-British and post-medieval pottery along with worked flint was recovered from the topsoil.

Soil deposit sequence

6.11.4 The geological substrate is mapped as Sandstone of the Splisby formation (BGS 2022); its upper surface was recorded on site as a pale yellow clayish sand with orange mottling. The ploughsoil, 0.45 m thick, comprised mid-brown sandy clay.

Prehistoric

6.11.5 An oval pit (370010) in the northern corner of site measured 0.68 x 0.24 and 0.13 m deep. Its brownish grey silt fills were distinct from the geological substrate it had been cut into, but no finds were recovered. Although pit 370010 was artefactually sterile, the charred plant assemblage is abundant and is consistent with a Neolithic chronology: hazelnut shell fragments, along with bedstraw/cleaver seeds and buds, and wood charcoal (mature oak heartwood, together with smaller quantities of hazel, alder/hazel, and ash).

6.11.6 Although no other prehistoric features were identified, the lithics assemblage from the ploughsoil was relatively large (22 pieces including a core and tools), with Area 37 having better lithic evidence for prehistoric activity than many of the other sites from the scheme. The majority of the flint came from a 20 m-diameter area in the eastern part of the site, to the south of potentially Neolithic pit 370010.

Medieval–post-medieval

6.11.7 Two north-east to south-west furrows (370021: >118 x 1.20 x 0.20 m and 370029: >65 x 1 x 0.16 m) extended across the site, with each continuing beyond the LOE in both directions

(Fig. 161). Furrow 370021 produced a single medieval (late 13th to 15th century) pottery sherd and had been truncated by field boundary 370028 (Fig. 81.33). The two furrows matched the 'ditches' that had been recorded in evaluation trench 21.

Post-medieval–modern

6.11.8 Ditch 370028 (2 x 0.25 m deep) matched a field boundary recorded on historic mapping and was seemingly removed at some point in the 20th century. The ditch cut furrow 370021 (Fig. 81.33); its fill contained (residual) late 13th to 15th-century pottery.

6.12 Area 19

Introduction

6.12.1 Area 19 occupied 0.24 ha, was centred on NGR 539096, 368798, and lay immediately north of the A158 where it runs between Hagworthingham and Partney. The stripped ground surface descended from 25.7 m OD at the south-west LOE to 24.4 m OD in the north-east. The field in which Area 19 lay was active agricultural land at the time of the excavation.

6.12.2 The geophysical survey revealed faint races of two linear features (Headland Archaeology 2019, fig. 35). During the evaluation trenching (NAL trench 220), two ditches were investigated but proved to be artefactually sterile.

6.12.3 Area 19 was stripped of overburden in March 2021. The works revealed a pit with struck flint and animal bone, at least one post-medieval/modern ditch, and various other undated boundary ditches and discrete features (Fig. 42). A small amount of medieval pottery was recovered, but there are no features that can firmly be dated to that period.

Soil deposit sequence

6.12.4 The geological substrate is mapped as Sandstone of the Spilsby formation (BGS 2022). During the fieldwork this appeared as two distinct layers: in the south it was a pale yellow silty sand with blue and orange mottling, whereas in the north of the site it was a far more compact pale yellowish grey sandy clay. Covering the geological substrate was a 0.40 m thick mid-brown sandy clay ploughsoil.

Prehistoric

6.12.5 Pit 190047 (0.78 x 0.36 x 0.15 m; Fig. 162) was located 0.60 m from southern LOE. The partial remains of a sheep/goat burial and struck flint were retrieved from its pale greyish brown sandy clay fill. Twelve other discrete features were investigated nearby, but all were artefactually sterile (see below).

Undated

6.12.6 Ditch 190022 (1 x 0.40 m) ran ENE–WSW in the southern part of the site and continued beyond the LOE; it did not match any boundaries recorded on historic OS maps and was not detected by the geophysical survey.

6.12.7 Ditch 190076 was located south of ditch 190022, and ran from the north-east to the south-west, where it terminated. The ditch measured 0.95 m wide and 0.53 m deep and had three to four fills, with animal bone recovered from the lowest fill (Fig. 82.34).

6.12.8 Twelve undated discrete features were recorded south of ditch 190022, these recorded as either pits or tree-throw holes. The tree-throw holes were very shallow, being 0.03–0.13 m deep.

Medieval–modern

6.12.9 Gully 190007 (0.35–0.60 x 0.15–0.35 m) ran north-west to south-east near the northern LOE and was cut by north-east to south-west gully 190011 (0.60 x 0.70 m). Neither is visible on historic OS mapping. Gully 190007 had two fills, with a single sherd of late 13th to 15th-century pottery retrieved from the upper fill.

6.12.10 North-west to south-east aligned ditch 190075 measured 2.30 wide by 0.49 m deep, had three to four fills (Fig. 82.35), and matched a field boundary recorded on historic OS mapping. The ditch was infilled at some point in the 20th century.

6.12.11 Gully 190064 (0.70 m wide and 0.10 m deep) lay parallel to field boundary 190075. No datable evidence was retrieved.

6.12.12 North-west to south-east aligned ditch 190028/190031 (1.3–1.75 m wide and 0.66–0.82 m deep) lay 10 m to the west of field boundary 190075. Post-medieval CBM, slag and a single sherd of late 13th to 15th-century pottery were retrieved from its fill.

6.13 Area 20

Introduction

6.13.1 Area 20 occupied 0.23 ha, centred on NGR 538649, 368552; it lay approximately equidistant between the A158 to the north and the River Lymn to the south (250 m away in both cases). The stripped ground surface descended towards the river, from 29 m OD at the northern LOE to 28.1 m OD in the south. The field in which Area 20 lay was active agricultural land at the time of the excavation.

6.13.2 The geophysical survey revealed possible linear anomalies (Headland Archaeology 2017b, fig. 52). Evaluation (NAL trench 320) works identified four ditches or gullies, one of which contained a very abraded Romano-British grey ware sherd and a piece of worked flint. A second piece of struck flint came from another of the features.

6.13.3 Area 20 was stripped of overburden in April 2021. The works revealed a ditch with struck flint and medieval pottery, along with an undated short gully/elongated pit (Fig. 43).

Soil deposit sequence

6.13.4 The geological substrate is recorded as Mudstone of the Kimmeridge clay formation, although the Spilsby Sandstone lies immediately to the north of the site (BGS 2022). The site ‘natural’ was recorded as a yellowish brown clay. This was sealed by a 0.35 m thick dark brown clayish sand ploughsoil.

6.13.5 A single sherd of Romano-British pottery (2nd century AD) was retrieved from the topsoil during stripping of the area.

Medieval

6.13.6 Ditch 200033 (2.2 x 0.47 m) extended for 27.3 m northwards from the southern LOE before terminating (Fig. 83.36). The ditch edges were fairly diffuse, often lacking a clear boundary with the underlying natural clay. One fragment of late 13th to 15th-century pottery was recovered from the feature, indicating medieval activity in the area, although not necessarily a date for the construction and use of this boundary. Historic mapping shows a NNW–SSE trackway 20 m to the west of ditch 200033, but it is uncertain, given the distance between them and their differing alignments, if the two features were associated.

Undated

6.13.7 Short gully/elongated pit 200034 (4.14 x 1 x 0.72 m) (Fig. 83.37) lay 10 m west of ditch 200033. No dating evidence was recovered; its north-west to south-east alignment might indicate it was not contemporary with the ditch. Indeed, its alignment matched instead a land drain, probably signalling a more recent chronology.

6.13.8 No continuations of the other linear features seen in the evaluation trench were identified in Area 20.

6.14 Area 21

Introduction

6.14.1 Area 21 occupied an area of 0.07 ha centred on NGR 537770, 368444. The stripped ground surface descended eastwards towards the River Lymn, which lay 90 m away in that direction. Near the western LOE the stripped ground surface lay at 22 m OD and at 21.4 m OD at the eastern LOE. Due to archaeological features continuing beyond the LOE, the area was extended by 10 m to the east. The land on which Area 21 was located was in use for agriculture when fieldwork occurred.

6.14.2 Area 21 is situated within 1 km of cropmarks identified within the DBA as representing three Romano-British enclosures (Network Archaeology Ltd 2019: DBA 138, 511 and 669); these lie to the east and west of Area 21 (Network Archaeology 2019, fig. 3.8). The geophysical survey did not record any anomalies of archaeological origin (Headland Archaeology 2017b, fig. 55).

6.14.3 Evaluation trenching (NAL trench 230) identified 11 ditches and a pit, from which 11 sherds of Romano-British pottery and one prehistoric sherd were recovered. The ditches were on various alignments, suggesting several phases of Romano-British and perhaps prehistoric date.

6.14.4 Area 21 was stripped of overburden in August 2021. The works exposed a pit with a broken prehistoric flint flake, two ditches with late Romano-British pottery (including some types typical of the final phase of pottery production in that period), cultivation furrows and various other ditches and gullies (Fig. 44), some of which may also be Romano-British, although a post-medieval date is considered more likely for most.

Soil deposit sequence

6.14.5 The bedrock geology comprises Mudstone of the Kimmeridge Clay formation overlain by superficial deposits mapped as clay, silt, sand and gravel alluvium (BGS 2022). This alluvium probably equates with the site ‘natural’, which was recorded as a yellowish grey silty clay. This was sealed by a 0.35 m-thick layer of greyish brown silty clay ploughsoil.

Prehistoric

6.14.6 A shallow and irregularly shaped pit (210035: 0.71 x 0.4 x 0.12 m) lay in the north-west of the excavation area. It contained a dark blackish grey silty clay with charcoal inclusions, from which a broken prehistoric flint flake was recovered.

Romano-British

6.14.7 North-east to south-west aligned ditch 210012/210017 (>9.4 x 1.22 x 0.45 m; Fig. 84.38) was located just east of the centre of Area 21. It continued beyond the southern LOE. It appeared to intersect with ditch 210052, although the relationship between the two ditches could not be established due to disturbance by a post-medieval land drain (210028). Pottery of late Roman date, including a substantial assemblage of grey ware, was recovered from

both slots in ditch 210012/210017. In addition, a dark blue glass bead from slot 210017 is also likely to be of late Roman date. This was complemented by a diverse assemblage of charred cereal (spelt wheat and barley) and wild plant remains from the sample from 210017.

6.14.8 Another north-east to south-west aligned ditch (210022: >14 x 1.4 x 0.32 m) produced pottery of late 4th-/early 5th-century date, including a sherd from a Huntcliff-type jar. The ditch was located west of the centre of the stripped area and continued beyond the northern and southern limits of excavation. A second ditch (210020; >14 x 0.78 x 0.18 m) lay adjacent to it to the west (Fig. 84.39). This ditch produced no artefactual evidence. The two ditches intersected to the south-west, although the stratigraphic relationship between them was unclear. This pair of ditches had been identified during the evaluation.

6.14.9 A deposit of sandy silt (210039: >6.2 x 1.75 x 0.25 m) was present in the east of the stripped area. It continued beyond the LOE, so its full extent was not established. It was cut by three furrows. Two sherds of Romano-British pottery were found within the deposit.

Medieval/ post-medieval

6.14.10 The aforementioned furrows were presumably remnants of medieval or post-medieval schemes of cultivation. Two of them were excavated, but yielded no artefactual evidence. Ditch 210014 (>12.7 x 0.96 x 0.19 m) also lacked artefacts. It shared the alignment of the furrows and appeared to delimit their western extent, and so would appear to be an associated feature.

Post-medieval/modern

6.14.11 The land drain mentioned above (210028) was represented by a single layer of 13 red ceramic tiles (0.23 x 0.13 x 0.04 m; Fig. 163) laid end-to-end on a north–south alignment. The tiles probably formed the base for a line of horseshoe-shaped ceramic drains that had been subsequently removed or destroyed.

Undated

6.14.12 Ditch 210052 (average 0.9 m wide x 0.19 m deep; Fig. 84.40) extended from the northern LOE approximately 13 m before until it terminated to the south-east. Near this point it had been cut by pit 210048 (1.5 x 1.3 x 0.23 m). A 3 m-long spur ditch on its northern side was also apparent. These features may represent part of a larger enclosure with internal divisions. Although an association with Romano-British ditch 210012/210017 seems likely, these features were artefactually sterile, so their chronology is unproven.

6.14.13 Ditch 210007/210024 (average 0.6 m wide x 0.2 m deep) lay very close and parallel to a land drain to the west, raising the possibility it was a relatively modern feature, but it could have been earlier, perhaps Romano-British.

6.14.14 A narrow linear gully (210033/210037: 0.29 m wide x 0.21 m deep) extended from the southern LOE towards the north-east for approximately 6 m before turning east and terminating. It may have continued after a gap of 5 m to the south-east and, overall, broadly matched the Romano-British alignments. However, no artefactual evidence was recovered.

6.15 Area 38

Introduction

6.15.1 Area 38 occupied 0.24 ha and was centred on NGR 537381, 368196, 1 km north of Raithby by Spilsby. The stripped ground surface descended from 44.5 m at the south-west end of the site to 41 m OD at its north-east end. It was located on a north-east facing valley side

that descends to a minor tributary, unnamed on OS mapping, of the River Lymn, which lays 700 m to the north-east. The field in which Area 38 lay was agricultural land at the time of the fieldwork.

6.15.2 Geophysical survey of this stretch of the cable route detected 'a distinctive field pattern unrelated to modern fields' (Headland Archaeology 2019, 9, fig. 38), with subsequent evaluation trenching (NAL trenches 27, 29 and 31) exposing ditches and gullies, some of which contained Romano-British pottery.

6.15.3 Area 38 was stripped of overburden in August 2021. The works exposed part of a co-axial arrangement of ditches (Figs 45 and 164); this was aligned on a north-east to south-west by north-west to south-east axis, with no obvious signs of any activity other than agricultural boundary demarcation. The pottery assemblage suggests the heyday of the site lay within the final centuries of the Romano-British period, and includes examples of types that indicate activity at the end of the 4th century and the beginning of the 5th century AD. The profile of the charred plant assemblage from Area 38 is consistent with domestic crop-processing activities around that time.

Soil deposit sequence

6.15.4 The geological substrate is recorded as Mudstone of the Kimmeridge clay formation, with no superficial deposits mapped for this area (BGS 2022). During the excavation, the natural substrate was recorded as a yellowish orange sand. This was directly overlain by a brown silty clay ploughsoil, which was 0.35 m thick.

Romano-British: earlier features

6.15.5 In common with many of the other excavation areas, at Area 38 the relative narrowness of the cable route makes it difficult to gain much sense of the layout and development of the plots of land that the various ditches and gullies were defining. Sufficient stratigraphic complexity was recorded, however, to make it clear that the site changed over time and the recorded archaeological sequence did not reflect a single phase of activity. This is supported by the artefactual evidence, which indicates features are likely to span the late 2nd century until the late 4th or early 5th century.

6.15.6 A group of narrower features in the south-western part of the site appear stratigraphically early and may all have been contemporary, possibly defining small plots of land. These features include 380255 (0.8 x 0.25 m), 380257 (0.65 x 0.25 m), 380258 (0.72 x 0.23 m) and 380186/380179 (0.45 x 0.22 m). Finds include Romano-British pottery, the majority dating from late 2nd century to the 4th century.

6.15.7 Although stratigraphically isolated, a short length of gully, 380254 (0.4 x 0.15 m; Fig. 85.41), may also have been contemporary with this activity; it contained pottery dated to the Roman period, with 4th-century types again present.

6.15.8 Three overlapping ditches (collectively 380248; Fig. 85.42) on the same north-west to south-east alignment at the north-east end of the site also appear stratigraphically early. They contained pot dated from the 3rd to the late 4th century in their upper fills and may also have been contemporary with the early gullies and narrow ditches described in this section. The ditches appear to all be iterations of a boundary (380248) that seems to have delimited archaeological activity, in all periods, to the south-west, with a more open landscape to the north-east. Each of the component ditches of boundary 380248 was approximately 2 m wide by 0.7 m deep. Ditch 380248 had been cut by ditch 380249 (0.96 x 0.43 m), which also contained 4th-century pottery.

Romano-British: later features

6.15.9 Ditch 380253 (2 x 0.94 m; Fig. 85.43) cut across some of the earlier features. It had a north-east to south-west alignment and continued beyond the LOE in both directions. Pottery from the late 4th to the early 5th century was retrieved from the feature. A diverse assemblage of waterlogged plant remains and invertebrates was also found in ditch 380253.

6.15.10 Ditches to the north of ditch 380253 may have formed part of a contemporary scheme of land division. These include ditches 380251 and 380256, the latter also containing late 4th to the early 5th-century pottery. The southern terminal of ditch 380251 (1.3 x 0.5 m), appeared to respect the boundary marked by ditch 380253, suggesting they (ditches 380251 and 380253) had been contemporary at some point. Ditch 380256 (1.94 x 0.53 m; Fig. 165) appeared to run towards 380253 at 90 degrees, and did not continue to its south, suggesting they may have formed a 'T' junction (their exact point of union was obscured by later features).

6.15.11 A segmented, semi-circular gully (defined by 380168/380175, 380262, 380252) may have defined a subdivision in the 16 m wide plot of land posited above. North–south gully 380107/380122 (0.52 x 0.15 m), which extended into the site for 3 m from the southern LOE may have been formed part of this segmented subdivision. Romano-British pottery was recovered from segments 380175 and 380262.

6.15.12 Ditch 380250 cut across the boundary marked by ditch 380253 and so seems to signal a new phase of activity (Fig. 85.44). It was 71 m long and continued beyond the LOE in both directions. Its width varied from 0.7–2 m and it had a maximum depth of 0.27 m. Pottery from the feature was of uncertain date.

6.15.13 Ditch 380259 (1.98 x 0.53 m) was located towards the south-western limit of the site. Its course and position seem to match that of a trackway and field boundary recorded on 19th-century historic mapping, suggesting it may be a relatively late feature. However, its northern section had a recut (Fig. 85.45) which contained (?residual) finds dated from the 4th to early 5th century. Its north-west to south-east orientation broadly matches that of the site's Romano-British boundaries, but also nearby extant boundaries.

6.16 Area 22

Introduction

6.16.1 Area 22 occupied 0.21 ha centred on NGR 537215, 368010. The area descended relatively steeply from 52 m OD in the south-west to 48.1 m OD in the north-east. The site lay 900 m north of Raithby by Spilsby. It overlooked a tributary, unnamed on Ordnance Survey mapping, of the River Lymn; the confluence of those two watercourses lay 900 m to the north-east. Because of archaeological features continuing north-east of the LOE, the area was extended 20 m in that direction. The field in which Area 22 lay was active agricultural land at the time of the excavation.

6.16.2 The geophysical survey indicated an arrangement of linear features possibly forming an enclosure, as well as a number of discrete features (Headland Archaeology 2019, fig. 38–39). Evaluation (NAL trenches 28, 102 and 103) revealed two ditches, one tree-throw hole, one gully and two pits. No datable evidence was retrieved from the pits, one of which was clay-lined. Prehistoric pottery was collected during the evaluation.

6.16.3 Area 22 was stripped of overburden in July 2021, exposing a probable roundhouse with associated pits and gullies, along with ditches and other pits (Fig. 46). Pottery from the site is overwhelmingly of prehistoric manufacture, with some of the sherds being more closely

datable to the Iron Age and another proportion of the assemblage being of earlier prehistoric date.

Soil deposit sequence

6.16.4 The bedrock geology is recorded as Sandstone of the Spilsby formation (BGS 2022). Covering the geological substrate was a 0.32 m thick brown silty clay ploughsoil.

Prehistoric/Iron Age

6.16.5 Two curvilinear ditches (220115, 220117) located at the western site boundary most likely defined a ring gully. This had an opening in the east and an oval rather than circular ground plan. Feature 220115 (1.3 x 0.38 m), the northern half of the ring gully cut pit 220034 (>0.60 x 0.32 m) which contained fired clay, worked flint and pottery of prehistoric, possibly earlier prehistoric, date. Ring gully 220115 also had prehistoric pottery within its fill, along with environmental evidence for oak, ash, hazel, alder and cherries. The southern arc, 220117 (1.34 x 0.32 m), contained an Early Bronze Age barbed and tanged arrowhead, animal bone and (?Middle) Iron Age ceramics, alongside less diagnostic pottery, and a similar variety of charcoal.

6.16.6 The ring gully enclosed an area of 14 x 10.5 m and is thought to represent the former site of a roundhouse. The enclosed area contained one internal ditch and a pit. The pit, 220077, measured 1.32 m long, 1.1 m wide and 0.56 m deep (Fig. 166), and contained sherds from a large prehistoric pot. The internal ditch, 220116, (4.9 x 0.6–1 x 0.12 m) ran WNW to ESE and was most likely associated with the roundhouse. The entrance of the roundhouse was 5.90 m wide and had pit 220017 (2 x 1 x 0.25 m) in its centre which probably had a structural function.

6.16.7 A closely set pair of pits (220023; 220025) lay 4 m north-east of the roundhouse and were possibly associated with it. They had similar dimensions (around 0.55 x 0.50 and 0.10 m deep) but differed in fill, with pit 220025 having a 0.05 m thick blueish grey clay lining on its sides and base (Fig. 167). A larger pit (220050: 2.3 x 1.02 x 0.15 m) was located approximately 2.80 m to the south-east and contained possible prehistoric pottery as well as worked flint.

6.16.8 The southern arc of the ring gully (220117) truncated 'L'-shaped ditch 220118 (1.73 x 0.54 m) (Fig. 86.46). Prehistoric pottery and worked flint were also retrieved from ditch 220118, which cut a smaller, 2.40 m long, gully (220030/220046: 0.76–0.86 x 0.25–0.37 m). Although gully 220030/220046 contained no finds, the stratigraphic sequence indicates it too was of prehistoric date.

6.16.9 Ditch 220013/220069 (0.75–1.45 x 0.23–0.32 m; Fig. 86.47) extended north-west to south-east from the eastern boundary and terminated just before meeting 'L'-shaped ditch 220118. Ditch 220013/220069 contained fired clay.

6.16.10 Pit 220032 (1.85 x 1.28 x 0.27 m), located at the centre of the mitigation area, contained possible Iron Age pottery. Pit 220048 (1.88 x 1.66 x 0.52 m), located 13.5 m to the north-east, contained earlier prehistoric pottery.

6.16.11 The remaining prehistoric features to be described lay in the north-eastern part of the site.

6.16.12 Ditch 220098 measured 2 m wide and 0.29 m deep and truncated spread 220097 but pre-dated ditch 220114 (see below). The spread was 4 m wide and 0.19 m thick, and contained one piece of prehistoric pottery.

6.16.13 The corner of an 'L'-shaped boundary (220114; its fuller extent is visible within the geophysical survey data from beyond the LOE) lay in the north-eastern part of Area 22. Investigations in the centre of the boundary revealed a sequence of four cuts (220081, 220093, 220083 and 220085; Fig. 86.48). The original, ditch 220081 (>4.40 x 0.84 m), had been replaced on its north-western side by a narrower ditch 220093 (0.9 x 0.6 m). This had been recut by ditch 220083 (1.55 x 0.68 m) which had in turn been replaced by ditch 220085 (1.63 x 0.58 m). The latter cut a pit (220087: 1.8 x 0.2 m), however the relationship between the pit and the earlier ditches is unknown. The pottery assemblage from this boundary sequence comprised Late Iron Age wares, with some pottery datable only to the prehistoric period generally. Struck flint and briquetage (a possible pinch prop) were also recovered.

Medieval

6.16.14 A small amount of medieval pottery, including Late Saxon material, was retrieved from the topsoil.

Undated

6.16.15 Sub-oval pit 220107 (1.14 x 1.25 x 0.21 m) had a lower fill of compacted stone, covered by a light grey sandy clay and topped with a clay deposit. Its relationship to spread 220097 and the ditches here was unclear.

6.17 Area 11

Introduction

6.17.1 Area 11 occupied 0.51 ha centred on NGR 537153, 366477, close to the summit of Raithby Hill. The stripped ground surface descended from 86.5 m OD in the north-eastern part of the site to 78.7 m OD in the south-west. The field in which Area 11 lay was active agricultural land; both Area 11 and Area 12 (see below) were located in same modern field, which lay south-east of the Mavis Enderby crossroads (historic mapping shows this field formerly consisted of separate plots of land, however).

6.17.2 The geophysical survey revealed an enclosure and possible discrete features to the east of area (Headland Archaeology 2019, fig. 71). No evaluation trenches were excavated in Area 11.

6.17.3 Three furrows were exposed when Area 11 was stripped of overburden in June 2021 (Fig. 47).

Soil deposit sequence

6.17.4 The underlying bedrock geology is mapped as Mudstone of the Hundleby clay member overlain by superficial deposits of diamicton till (BSG 2022). Two different geological substrates were recorded inArea 11: a very compact mid to dark grey, yellow, orange and blue sandy clay covered most of the site, with pale yellow and grey silty sand in its south-eastern corner. The ploughsoil was recorded as a 0.30-m thick dark brown silty sand.

Medieval/post-medieval

6.17.5 Three north–south furrows (110004, 110006 and 110008/110010; 1–3.4 x 0.07–0.14 m deep; Fig. 87.49) were uncovered. All extended beyond the site boundary and match the geophysical survey data, as well as the alignment of extant and historic field boundaries. A single sherd of post-medieval pottery (mid-16th to 18th century) along with fired clay and iron objects, including a medieval horseshoe nail, came from the westernmost furrow.

6.17.6 There were no remains that may have been related to the possible prehistoric or Romano-British enclosure/settlement that the geophysical survey had detected to the east of the site.

6.18 Area 12

Introduction

6.18.1 Area 12 occupied 0.37 ha centred on NGR 537335, 365765. The stripped ground surface descended gently from north (63.9 m OD) to south (62.3 m OD). Area 12 lay in the same modern agricultural field as Area 11, east of Mavis Enderby.

6.18.2 Geophysical survey either side of the stripped area revealed a number of pits and a possible ring ditch (Sumo Survey 2017, fig. 17). No evaluation trenches were excavated in Area 12.

6.18.3 Area 12 was stripped of overburden in August 2021, revealing ditches and other features, with some seemingly part of an enclosure of Late Iron Age date (Fig. 48). Whilst no *in situ* Romano-British remains were identified, ceramic finds from the period indicate some activity hereabouts at that time. Two of the boundaries that crossed Area 12 corelate with field divisions shown on historic OS mapping.

Soil deposit sequence

6.18.4 The solid geology is mapped as Sandstone of the Spilsby formation (BGS 2022). The site 'natural' was recorded as an orange and blue-grey clay with grey mottling; this lay beneath a 0.34 m-thick, mid-brown, ploughsoil.

Prehistoric/Iron Age

6.18.5 Ditch 120018/120019, the northernmost of the boundaries recorded on the site, followed a curving line and extended beyond both eastern and western LOE. It was 1.44–1.65 wide and up to 0.48 m deep (Fig. 168). It contained prehistoric, possibly Iron Age, pottery as well as animal bone and an iron object.

6.18.6 Ditch 120088 followed a broadly similar course a few metres to the south, and was a more substantial feature (3.3 m wide by 0.9 m deep). Geophysical survey to the east of the area detected a continuation of this feature, which appears to have been part of a ditched enclosure. Finds included a relatively large assemblage of pottery (almost 1 kg; the wares were prehistoric in date, with some Late Iron Age material identifiable). The ditch also contained quantities of fuel ash in its fills (Fig. 169), along with worked flint and animal bone, probably signalling settlement in the near vicinity. The charcoal assemblage from ditch 120088 was in good condition and particularly rich; it included oak, cherries and alder.

6.18.7 On its western side, ditch 120088 had been cut by pit 120056 (1.85 x 1.36 x 0.64 m), which contained no finds other than struck flint, and may also have been a prehistoric feature.

6.18.8 A short curvilinear ditch lay to the south (120087: 8.9 x 1.3x 0.23–0.42 m deep; Fig. 88.50). The geophysical data from the wider area indicates this was an internal feature within the ditched enclosure, although it may have been part of an earlier arrangement – it lacked the Late Iron Age sherds found in ditch 120088, and whilst some of the pot sherds from its fills were probably of Iron Age date, a single small handmade sherd of likely earlier prehistoric date was also recovered.

6.18.9 Ditch 120063/120073 (2.28 x 0.96 m; Fig. 88.51) crossed the site on an east–west alignment and can be seen to continue a short distance to the east within the geophysical data from the wider area. Animal bone, worked flint and prehistoric pottery were found in the feature, some of the sherds probably of Bronze Age or Iron Age date.

6.18.10 The central/southern part of the site was crossed by north-east to south-west aligned ditch 120039. This had a shallow, dish-shaped profile (being 8.5 m wide by just 0.5 m deep) and

its upper reaches were filled with/sealed by colluvium. Animal bone, worked flint and a decorated prehistoric pottery sherd, possibly of Bronze Age date, were retrieved from it base.

Romano-British

6.18.11 Whilst no Romano-British features were identified, artefacts from the period do attest to limited activity in the landscape at that time. Residual grey ware was retrieved from post-medieval field boundary 120089 (see below), and ditch 120087 contained three small pieces of *opus signinum* (crushed CBM in mortar), which was presumably intrusive in light of the presence of several pieces of worked flint and prehistoric pottery in the same feature.

Post-medieval/modern

6.18.12 In the northern/central part of Area 12, gully 120089 (>13.13 x 0.51 x 0.26 m) cut across ditch 120088 and pit 120056. It matches a field boundary shown on historic OS mapping, which tallies with its straight sides and flat base. A sherd of Romano-British grey ware, along with other sherds of possible Romano-British and prehistoric/Iron Age pottery were recovered from its fills, such material presumably reflecting the disturbance it brought to underlying features.

6.18.13 Approximately 110 m to the south, ditch 120032 (1.74–2.29 x 0.3–0.65 deep) also matches the position and course of a boundary depicted on historic mapping. This contained mid-18th to mid-19th-century pottery and other relatively modern material, along with residual worked flint.

Undated

6.18.14 Seven discrete features at the northern end of the site were investigated, no finds were collected, and they are of doubtful archaeological provenance overall, some being interpreted as tree-throw holes (diam. 0.74–2.21 x 0.12-0.17 m deep).

6.18.15 The terminal of a curvilinear feature (120030/120050: 7.1 x 1.35 x 0.29 m) that continued beyond the eastern LOE appeared to respect the position of ditch 120018/120019. It is not known whether the two features were associated, and no finds were recovered from 120030/120050. Their fills were not dissimilar, however, which could support the notion they were contemporary. A shallow pit to the south of 120030/120050 (120015: 0.5 x 0.42 x 0.08 m) was also devoid of artefacts.

6.18.16 A ditch at the southern end of the site (120048/1200052: 1.13 x 0.58-0.65 m) provided no dating evidence and does not match any boundaries or other features apparent on historic mapping.

6.19 Area 24

Introduction

6.19.1 Area 24 occupied 0.10 ha centred on NGR 537446, 365404. The stripped ground surface lay at 61.4 m OD; the wider area descended gradually to the east. Area 24 lay in farmland equidistant between Old Bolingbroke and Spilsby (2.5 km to the west and east respectively). Just beyond the southern LOE of Area 24 lies the parish boundary between East and West Keal. This previously followed a field boundary hereabouts, although that was removed at some point in the 20th century.

6.19.2 Area 24 was not subject to geophysical survey, although survey of the adjacent area (Sumo Survey 2017, fig. 17) revealed only discrete anomalies of uncertain origin. Evaluation trenching (NAL trench 146) revealed one undated ditch, whilst trench 116, dug beyond the

LOE of Area 24, contained a feature thought at that stage to be a potential unurned cremation grave (although subsequent assessment has found the bone to be animal).

6.19.3 Area 24 was stripped of overburden in August 2021. The works exposed a single undated ditch which had already been investigated at the evaluation stage (Fig. 49). No finds were recovered, either from *in situ* or unstratified contexts.

Soil deposit sequence

6.19.4 The geological substrate is mapped as Sandstone of the Spilsby Formation (BGS 2022). The head of this material formed the site 'natural' and was recorded as a grey-mottled orange and blue-grey clay. Covering the geological substrate was a 0.45 m thick mid-brown ploughsoil.

Undated

6.19.5 Ditch 240003/240006 (1.1–1.75 x 0.26–0.40 m; Fig. 89.52) crossed the northern part of Area 24 on a north-east to south-west alignment.

6.19.6 No remains tallying with the possible cremated remains (from evaluation trench 116) that formed the basis for the selection of this area for mitigation excavation were uncovered.

6.20 Area 25

Introduction

6.20.1 Area 25 occupied 0.52 ha, centred on NGR 537478, 364969. It surrounded an area occupied by a site compound which was not excavated. The stripped ground surface descended slightly from 66.3 m OD at the western LOE to 65.6 m OD in the east.

6.20.2 Geophysical survey results from Area 25 were restricted to traces of ridge and furrow cultivation (Sumo Survey 2017, fig. 19). The evaluation trenching (NAL trenches 120 and 298) revealed two pits, one with Romano-British pottery, and a further four sherds from the topsoil (Wessex Archaeology 2021a).

6.20.3 Area 25 was stripped of overburden in August 2021. The works exposed nine broadly east–west aligned furrows (Fig. 50). Additionally, in the south-east corner of the site, a 'J'-shaped arrangement of postholes was recorded.

Soil deposit sequence

6.20.4 The geological substrate is recorded as Sandstone of the Spilsby formation (BGS 2022). This formed the site 'natural', and was recorded as a yellowish brown clayish sand. Covering the geological substrate was a 0.50 m-thick, mid-brown, silty sand ploughsoil.

Medieval to post-medieval

6.20.5 Seven of the nine furrows were investigated: (250003, 250005, 250007, 250009, 250011 (Fig. 90.53) 250025 and 250027). One fragment of a late 13th to 15th-century jug or jar and a piece of fired clay were retrieved from furrow 250003. There were no finds from the other features. The cultivation furrows match the alignment of the geophysical anomalies, and are parallel with boundaries visible on historic mapping beyond the site to its north and south.

Undated

6.20.6 An arrangement of six postholes (collectively 250029) lay within the south-east corner of Area 25 (Fig. 170). All postholes were similar in shape, size and fill. The largest posthole

(250019) measured 0.48 x 0.42 m with a depth of 0.12 m and the smallest (250013) measured 0.29 x 0.22 m with a depth of 0.09 m. No datable material was retrieved from their mid-brownish grey silty sand fills.

6.20.7 No features were recorded from Area 25 to supplement the limited signs of Romano-British activity recorded in trench 120.

6.21 Area 26

Introduction

6.21.1 Occupying just 0.04 ha, Area 26 was the smallest of the excavation sites. It was centred on NGR 537456, 364667 and lay a little over 250 m to the south of Area 25 (see above). Area 26 lay in active agricultural land; the stripped ground surface was at 65.80 m; the ground surface in the wider area descended gently to the north-east.

6.21.2 Geophysical survey of Area 26 revealed possible archaeological remains in the form of at least two linear features and other, more discrete, trends (Sumo Survey 2017, fig. 19). Evaluation (NAL trench 118) revealed a posthole and a ditch, both undated.

6.21.3 Area 26 was stripped of overburden in July 2021. A gully and a furrow were found (Fig. 51).

Soil deposit sequence

6.21.4 The geological substrate is mapped as Ironstone of the Claxby formation (BGS 2022). The site 'natural' comprised an orangish brown sand covered by a brown sand ploughsoil.

Romano-British

6.21.5 One gully (260003/260005: >25 x 0.71 x 0.19 m; Fig. 91.54) crossed the centre of the site on an approximately north to south alignment and continued beyond the limits of excavation. Romano-British pottery was recovered from both slots dug across the feature, that from the more southerly intervention may be of 2nd-century date. Gully 260003/260005 appears to match one of the linear geophysical anomalies, although it did not appear in the evaluation trenching results.

Medieval/post-medieval

6.21.6 A broadly east–west furrow (260007: 1.45 x 0.15 m) matched the alignment of a land drain to its north. No artefacts were recovered from the furrow.

6.22 Area 39

Introduction

6.22.1 Area 39 occupied 0.07 ha centred on NGR 537289, 363805. The area descended from 67.5 m OD at the northern LOE to 65.8 m OD in the south. The field in which Area 26 lay was active agricultural land, situated at the foot of the southern slopes of Mardon Hill (Fig. 171).

6.22.2 Geophysical survey of Area 39 and its surroundings revealed little in the way of archaeological activity (Headland Archaeology 2017b, fig. 63; 2019, fig. 46). Evaluation trenching (NAL trenches 122 and 280) exposed two undated ditches. Over 50 pieces of possible worked flint were recovered from the topsoil and subsoil around the two trenches.

6.22.3 Area 39 was stripped of overburden in August 2021. The works exposed an unstratified worked flint assemblage, two furrows and an undated ditch (Fig. 52). In addition, pottery of possible Iron Age or earlier date was found unstratified.

Soil deposit sequence

6.22.4 The geological substrate is mapped as Ironstone of the Claxby formation, with Mudstone of the Hundleby clay member just to the north (BGS 2022). The site 'natural' may reflect the latter material, comprising as it did a brownish yellow compact clay. This was typically encountered at around 0.40 m below the existing ground surface. A yellowish brown sandy, gravelly clay subsoil was intermittently present and around 0.18 m thick. A brown sandy clay ploughsoil sealed the site.

Prehistoric

6.22.5 In the northern half of Area 39 an assemblage of 33 struck flints was collected from the stripped ground surface. Additionally, four sherds of pottery of probable earlier prehistoric date were found. The finds had presumably lain at the interface of the subsoil and natural prior to the commencement of works.

6.22.6 Area 39 stands out as one of the richest for flint finds, and the assemblage from it and the nearby trenches includes both Early Neolithic and Mesolithic material.

Medieval/post-medieval

6.22.7 Two furrows, set some 5 m apart, were exposed at the southern end of the site. Neither was investigated, but the northernmost aligned with the ditch recorded in evaluation trench 280.

Undated

6.22.8 East–west ditch (390004: >5.9 x 1.3 x 0.3 m; Fig. 92.55) lay between the furrows and shared their alignment, probably signalling all were contemporary. Three worked flints were recovered from the ditch.

6.23 Areas 28 and 34

Introduction

6.23.1 Areas 28 and 34 were contiguous, with features continuing from one area to the other, and so they are considered jointly below. Together they occupied a 0.41 ha area, which was centred on NGR 536948, 362434. The ground surface descended from 9.5 m OD at the northern end of Area 28 to 7.5 OD at the southern end of Area 34. Areas 28 and 34 lay on the eastern side of the A16, between the villages of West Keal to the north and Keal Coates to the south. Areas 28 and 34 were in use for agriculture at the time of the excavation.

6.23.2 The geophysical survey revealed a north–south aligned ditch and other anomalies including a second linear feature (Headland Archaeology 2019, fig. 48; Sumo Survey 2017, fig. 22). Evaluation trenching (NAL trenches 41, 123 and 126) revealed multiple ditches, gullies, postholes and furrows (Fig. 53). Prehistoric pottery, some of potential Iron Age date, as well as medieval wares was recovered from some.

6.23.3 Areas 28 and 34 were stripped of overburden in July 2021. The works exposed numerous linear features and curvilinear ditches and gullies, as well as postholes, pits, furrows, a levelling layer and a hedgerow. The site appears to have witnessed activity during a number of periods in the past. Some of the remains date broadly to the prehistoric period, with some of Iron Age date evident; the site was also used, probably for agriculture, in the medieval and post-medieval periods, with field boundaries not corresponding to their modern counterparts revealed. During the excavation, the southern LOE of Area 34 was extended southwards by some 30 m to further expose features continuing beyond the original site boundary.

Soil deposit sequence

6.23.4 The geological substrate is mapped as Mudstone of the Kimmeridge clay formation. Superficial deposits are described as till (diamicton) (BGS 2022). This was recorded during the excavation as an orange-mottled mid-grey silty clay 'natural'. Covering this was a 0.09 m thick orange-mottled pale brown silty clay subsoil. Overlying the subsoil was a 0.34 m thick mid-yellowish brown silty clay ploughsoil.

Prehistoric/Iron Age

6.23.5 The evaluation and mitigation excavations at the site returned an assemblage of pottery of prehistoric/Iron Age date comprising approximately 75 sherds (uncertainty over whether some of the more featureless sherds are prehistoric or Saxon renders an accurate total currently elusive). Although this is not a large amount it does mark this site out as a relative focus for activity in the landscape prior to the Romano-British period, and the worked flint assemblage (17 pieces) provides further evidence of this. However, the majority of the flint and early pottery was found alongside later material or in later contexts. Described in this section are the few surviving *in situ* remains of prehistoric/Iron Age activity.

6.23.6 In the north-west corner of the site, investigation of a north-west to south-east aligned short gully or elongated pit (280036/280064: 2.75 x 0.44 x 0.12 m) recovered two fragments of Late Iron Age pottery, including a stamp-decorated fine ware sherd.

6.23.7 Approximately 105 m to the south, gully 340169 (>8 x 0.7 x 0.22 m; Fig. 93.56) extended from the western LOE and curved southwards for 8 m before terminating. Two of the three interventions dug across it contained Iron Age pottery, and that from the terminal could be dated more precisely to the Middle to Late Iron Age.

6.23.8 It is possible that together gully 340169 and gully 340172 (up to 1.3 m wide by 0.35 m deep) to the south defined the poorly preserved remains of a ring gully with an internal diameter of approximately 9.5 m. However, no finds were recovered from the second gully so this must remain speculative. Equally, no finds were present within the four pits found 'inside' the area enclosed by the proposed ring gully: 340012 (1.08 x 0.72 x 0.21 m), 340087 (0.41 x 0.36 x 0.09 m; Fig. 172), 340124 (0.22 x 0.12 x 0.19 m) and 340126 (diam. 0.22 x 0.18 m). Gully 340172 was stratigraphically early – it had been cut by ditch 340171 (see below), which contained a mixed medieval and prehistoric assemblage. This relationship is necessary but not sufficient to support the ring gully suggestion.

Medieval

<u>East–west ditches</u>

6.23.9 Listed below are the ditches that crossed the stripped area on a broadly east–west alignment. All continued beyond the eastern and western LOE and their full form is unknown. They are described from north to south.

6.23.10 Ditch 280134 (2.6 x 1 m) contained a finds assemblage that included two sherds of possibly early prehistoric pottery and four sherds of medieval pottery (late 13th–15th century) in its upper fill. The feature marked the division of the site between that part (to its north) that contained numerous parallel plough furrows and that part (to its south) which did not, raising the possibility that it was a boundary marker when that method of cultivation was in use. Ditch 280134 had been cut by ditch 280135 (Fig. 93.57), which was cut in turn by ditch 280133 running NNE–SSW. The northern terminal of ditch 280137 appeared to post-date ditch 280134, although the two may have been broadly contemporary in use; 280137 extended southwards/downslope from 280134 for 11.5 m, measured 0.8 m wide by 0.3 m

deep, and was found to contain animal bone. Both ditches 280134 and 280135 truncated a layer (280110: not illustrated) which contained two medieval pottery sherds.

6.23.11 Ditch 280135 (1.4 x 0.6 m) cut across the course of ditch 280134 on a more ENE–WSW alignment, becoming narrower and shallower in the east. Finds included medieval pottery (13th–15th century), with one intervention producing sherds of Late Iron Age–1st-century date from the basal fill and a single sherd of mid-16th–18th-century date from the uppermost fill.

6.23.12 A little over 30 m to the south, ditch 340171 (1.4 x 0.58 m) contained animal bone, pottery, stone and worked flint. Of the ten sherds of pottery recovered from this feature, eight were prehistoric, one was either prehistoric or Saxon, and one was of late 13th to 15th century date. Ditch 340171 cut undated curvilinear gully 340172, part of the potential ring gully outlined above. Ditch 340171 had been cut by long, north–south post-medieval boundary ditch 340170 (see below) (Fig. 93.58).

6.23.13 Ditch 340173 (2.32 x 0.78 m; Fig. 93.59) contained slag, fired clay, animal bone and a medieval or later pot sherd, the latter retrieved from the upper fill of the feature; this was a relatively finds-rich feature, producing approximately 25% (by weight) of the finds from Areas 28 and 34. It too had been cut by the post-medieval boundary ditch 340170 and also by an approximately 7.6 m long ditch, 340104/340121, which contained a single sherd of Middle to Late Iron Age pottery, as well as flint debitage.

6.23.14 Ditch 340174, aligned north–south, extended for nearly 40 m across the southern part of Area 34 and continued beyond both the northern and southern LOE. It appeared to mark the western extent of the area of archaeological remains exposed in Areas 28 and 34. It was approximately 2–3 m wide and 0.7 m deep and contained an artefactual assemblage including mid-15th–16th-century pottery (from the evaluation) and Iron Age pottery from the mitigation excavation (Fig. 93.60).

Medieval to post-medieval

Ditches 280133 and 340170

6.23.15 The construction of this, the longest boundary on the site, marked a change in land management in this part of the landscape: it cut all of the ditches (which were mainly orientated east–west) that it crossed. The boundary comprised ditches 280133 and 340170 (Figs 93.61 and 173) which together extended across Areas 28 and 34 on a north-east to south-west axis for over 150 m and continued beyond both the northern and southern site boundaries. The alignment of this boundary was parallel to that of the modern A16, which lies 80 m to the west. The boundary was not continuous but contained a break just south of east–west ditch 280134. At this point, the southern end of ditch 280133 veered to the south-east, and the northern end of ditch 340170 was obscured by two or perhaps three spur ditches, which were found to be contemporary with ditch 340170. Late Iron Age to early Romano-British pottery was retrieved from spur ditch 340168 (Fig. 174). The gap between ditches 280133 and 340170 was 3.5 m wide and is presumed to define a gateway or crossing. This boundary defined by ditches 280133 and 340170 was typically 1.3 m wide by 0.3 m deep. It was a relatively recent feature, as suggested by stratigraphic relationships and the pottery it was found to contain. Two sherds of mid-16th–18th-century pottery were recovered from ditch 280133, along with a small handmade sherd of uncertain (prehistoric?) date. In addition, late 13th to 15th-century pottery was found in this feature where it was intercepted by evaluation trench 123. Ditch 340170 contained a single sherd of pottery, this dated to the mid-15th–mid-16th century. The boundary does not, however, appear on historic mapping produced in the 1880s, and its removal would therefore be likely to pre-date that period.

Furrows

6.23.16 Many furrows, typically 2 m wide, were recorded crossing the site on a broadly east–west alignment, which matched that of some of the boundaries on the site, notably ditches 280134 and 340173. Fragments of a fired clay slingshot were retrieved from furrow 280006, and medieval to post-medieval pottery came from furrows 280008, 280018, 280054, 280058, 280070 and 340038. Furrow 280018 also contained a fragment of medieval (13th–14th century) roofing tile.

6.24 Area 29

Introduction

6.24.1 Area 29 occupied an area of 0.15 ha, centred on NGR 536294, 362097. The ground surface descended from 7.40 m OD in the north-east of the stripped area to 6.85 m OD at the south-west. The field in which Area 29 lay was in active agricultural use when the fieldwork occurred.

6.24.2 No potential archaeological remains were revealed in the geophysical survey (Headland Archaeology 2017b, fig. 27 and 2019, fig. 48a–b). Evaluation trenching (NAL trench 132 and 300) revealed ditches, furrows and a pit. Pottery recovered was of prehistoric, Romano-British and medieval (13th–15th century) date. Other finds from the evaluation included burnt daub that may relate to structures such as houses or subsistence/craft activities (ovens, kilns etc).

6.24.3 Area 29 was stripped in May 2021. This exposed eight ditches and curvilinear gullies, along with two pits (Fig. 54). Additionally, nine north-east to south-west furrows, which post-date other features they intersected with, were uncovered. Finds recovered from Area 29 can mostly be dated to the medieval and post-medieval periods, with this material largely deriving from the furrows. Some of the other features may be prehistoric or Romano-British, but dating evidence for these is sparse.

Soil deposit sequence

6.24.4 The geological substrate is recorded as Mudstone of the Kimmeridge clay formation overlain by till. (BGS 2022). The till was encountered approximately 0.50 m below the existing ground surface and comprised a compact mid-yellowish grey clay. Subsoil, consisting of a moderately compact mid-yellow sandy clay with occasional gravelly inclusions, up to 0.20 m thick, was intermittently present across the site. Ploughsoil, with a depth of around 0.30 m, overlay these deposits. It comprised a fairly loose mid-brown clayey sand with occasional gravel inclusions.

Iron Age/Romano-British

6.24.5 Ditch 290062 (average 1.26 x 0.32 m) extended from the northern LOE in a south-east direction for around 7 m before turning to the south-west for at least another 8 m. It was cut by furrow 290021. The feature may represent the eastern corner of a rectangular enclosure. A single sherd of possible Romano-British pottery was recovered from one slot in this ditch, with further sherds of potential prehistoric/Iron Age date coming from the feature's probable continuation in evaluation trenches 132 and 300. A smaller gully (290058; 0.4 x 0.25 m) was identified running parallel with 290062 on its south-west edge for approximately 4 m (Fig. 175), where its terminal was cut by ditch 290062.

6.24.6 Ditch 290004/290018 (1.4 x 0.5 m; Fig. 94.62) appeared to 'mirror' the alignment of ditch 290062, with the two features separated by a 3.5 m-wide gap. No artefactual evidence was recovered from the ditch during the mitigation, although its evaluation produced two prehistoric/Iron Age sherds and a possibly intrusive medieval sherd. It is possible that

ditches 290004/290018 and 290062 were contemporary, and they continued southwards to some form of junction with ditch 290064 (see below), the three features together representing part of a larger field or enclosure system.

6.24.7 Two parallel curvilinear gullies, 290012/290031 (0.65 x 0.2 m) and 290014/290033 (0.4 x 0.18 m; Fig. 94.64), were investigated to the west of ditches 290062 and 290004/290018. They were set approximately 0.5 m apart, aligned roughly east–west, curving north at each end. They were truncated to the east and west by furrows. Small abraded sherds from a prehistoric necked jar or bowl were recovered from a soil sample taken from gully 290031. Although only 6 m lengths of each survived, the arrangement might suggest they were the remnants roundhouse drip gullies.

6.24.8 North-west to south-east oriented ditch 290064 (average 1.2 x 0.44 m; Fig. 94.63) extended from the north-west corner of the excavation area and continued beyond the south-east LOE. It was cut by several furrows. Two shell-gritted sherds of Late Iron Age or early Romano-British date and pieces of animal bone came from this ditch, with further prehistoric/Iron Age pottery recovered where the feature was investigated within trench 132.

Medieval/post-medieval

6.24.9 Nine north-east to south-west aligned furrows were recorded across the excavation area, three of which were excavated. The furrows were spaced roughly 5 m apart. Ridge and furrow cultivation has been identified in the wider landscape, and the remains at Area 29 presumably formed part of a more extensive landuse block (Network Archaeology Ltd 2019, 29).

6.24.10 Two parallel north-east to south-west aligned ditches 290010/290051 (2.41 x 0.55 m) and 290040/290049 (1.49 m x 0.36 m) were recorded in the east of the excavation area. The ditches overlapped but the relationship between them was unclear. A small group of mixed medieval and post-medieval glazed pottery sherds was recovered from 290010/290051 along with some animal bone and an iron object. Post-medieval brown-glazed pottery and copper alloy, iron and lead objects were found in the fill of 290049.

6.24.11 Two sherds of medieval pottery, including a base sherd, were recovered from the subsoil in Area 29.

Undated

6.24.12 Around 2 m south of the parallel curvilinear gullies described above there was a short linear gully (290063; 0.7 x 0.44 m; Fig. 176). It contained an artefactually sterile silty grey fill. The ditch did not intersect with any other features. A pit (290045: diam. 0.7 x 0. 3 m) was located around 1 m to its south. The pit contained an artefactually sterile charcoal-rich fill; the type of plant remains present could be indicative of the burning of turves.

6.24.13 Pit 290043 (1.19 x 0.46 x 0.52 m) was located towards the eastern end of the excavation area. It contained a blackish grey sandy clay fill. No artefactual evidence was retrieved.

6.25 Area 40

Introduction

6.25.1 Area 40 occupied 0.22 ha and was centred on NGR 534937, 361419. It lay on flat ground just to the south-east of the former runway of RAF East Kirkby and was approximately equidistant between East Kirby and Stickford. Area 40 was in use for agriculture at the time of the excavation.

6.25.2 The stripped ground surface lay at 6 m OD. The boundary between the civil parishes of West Keal and East Kirkby lay 90 m to the west of the site, where it follows the course of a small stream marked on 19th-century mapping. The stream is absent from modern maps, although the line of the boundary remains the same.

6.25.3 Geophysical survey covered the majority of Area 40 in 2017, with the survey of the remainder occurring in 2019 (Headland Archaeology 2017b, fig. 43; 2019, fig. 52). Evaluation trenching (NAL trench 46) revealed one pit and at least nine ditches. Six of these contained Romano-British pottery, and animal bone was also recovered from a number of features, suggesting the presence of a settlement.

6.25.4 Area 40 was stripped of overburden in April 2021; investigated features include a large rectangular ditch enclosing numerous curved ditches and gullies, postholes and pits (Figs 55 and 56). A ring gully, four-post structure and various other ditches and gullies were exposed elsewhere on the site. An alluvial deposit lay across the southern and south-eastern parts of Area 40; although most features cut the deposit, some were earlier. After the features cutting into the alluvial layer had been investigated, it was removed by machine, thereby revealing the features it had sealed.

6.25.5 Pottery dating evidence indicates that the focus of activity at Area 40 occurred during the later part of the Iron Age and extended into the early Romano-British period (1st–2nd century AD), although only a small quantity of fully Romanised pottery is present.

Soil deposit sequence

6.25.6 Bedrock geology is recorded as Mudstone of the Kimmeridge clay formation, with superficial deposits of diamicton till (BGS 2022). The superficial deposits comprised a mid-yellowish brown silty clay.

6.25.7 In the south and south-east part of the stripped area a 0.2–0.4 m thick layer of alluvium (400419) was recorded. The modern ploughsoil was recorded as a 0.40 m thick layer of dark greyish brown silty clay.

Iron Age–Romano-British

Pre-alluvium features (Fig. 55)

6.25.8 An irregular ‘Y’-shaped arrangement of ditches was exposed beneath the alluvium in the eastern part of the site. The full extent of its constituent parts was difficult to discern due to the imposition of later features, which post-dated the deposition of alluvium 400419.

6.25.9 Together, ditches 400562 (1.75 x 0.76 m) and 400563 (1.52 x 0.46 m) extended for 27 m on an approximately north-east to south-west alignment along the eastern edge of the site. At its northern and southern ends, the boundary they defined turned to run to the west and south-east respectively, and were covered by later features. Ditch 400563 was recorded as cutting 400562 (Fig. 95.65), indicating the boundary had been renewed in its southern part, or extended to the south. A small amount of early Romano-British pottery was recovered from ditch 400562, with a slightly larger amount of Late Iron Age pottery found in ditch 400563, perhaps suggesting that this was the earlier and the boundary had been extended to the north.

6.25.10 A smaller ditch (400449: >7 x 0.96 x 0.27 m) forked off to the east from this boundary, although a later feature had obscured its relationship with the boundary formed by ditches 400562 and 400563.

6.25.11 An alignment of four postholes (collectively 400422) was recorded close to the eastern site boundary. These extended over 3.4 m, were irregularly spaced (set 0.3–1 m apart) and may have formed a short fenceline. No finds were present. The remainder of the pre-alluvium features were small, isolated pits and postholes (e.g., 400528, 400534 and 400541) and a gully terminal (400511: 2.7 x 0.68 x 0.13 m). None can be dated.

6.25.12 A complete modern stoneware bottle came from a slot investigating ditch 400562, this object intrusive, potentially associated with disturbance from the evaluation trench that crossed the feature at this point.

Alluvium

6.25.13 A deposit of alluvium, 400419 (also 400173 and 400255), was present in the southern and eastern part of the site and sealed the features described above. Comprising orangey grey silty sand, typically 0.2–0.4 m thick, it produced a small assemblage of finds, including animal bone, worked flint and pottery of Iron Age or generalised prehistoric appearance.

Post-alluvium features (Fig. 56)

6.25.14 The majority of the archaeological features in Area 40 post-dated the alluvium, although their dating (later Iron Age–early Romano-British) did not differ from the features described above which lay below it.

6.25.15 The principal feature was an enclosure defined on its western, northern and southern sides by ditches 400545, 400546 and 400549 respectively. The enclosed area measured 25 m north–south by at least 32 m east–west (>800 m^2), with north–south gully 400547 (19.6 x 0.72 x 0.23 m) forming the clearest subdivision. The three ditches defining the enclosure were typically 2.8 m wide by 0.75 m deep (Fig. 95.66), with many of the slots showing signs of recutting. All contained a variety of Iron Age and early Romano-British pottery, alongside ceramics of general prehistoric date.

6.25.16 Space within the south-eastern part of the enclosure appeared to have been repeatedly remodelled and subdivided by a succession of features. One of the earliest was north-west to south-east ditch 400548 (11.5 x 1.45 x 0.42 m) which had been cut by the subdivision gully 400547 mentioned above, as well as a recut curvilinear feature (400550: >17 x 2.3 x 0.87 m) that appeared to branch off the northern side of enclosure ditch 400549 and continue beyond the eastern site limit. This had been cut in turn by a curvilinear gully (400551: 7.6 x 0.66 x 0.3 m) which terminated just before the eastern site limit.

6.25.17 These features generally contained either few or no finds; the ceramics that were present spanned the same broad period as those recovered from the principal enclosure ditches (i.e., later Iron Age–early Romano-British), although sherds from a ‘barrel shaped’ jar of Bronze Age or Iron Age manufacture was found in ditch 400548.

6.25.18 The area to the south of ditch 400549, that is, beyond the principal enclosure to its south, contained a plot of land defined by various gullies, a sub-circular ring gully and a four-post structure, as well as several discrete pits and postholes.

6.25.19 One of the earliest features in this southern part of the site was north-east to south-west gully 400557 (>2.6 x 0.35 x 0.3 m). This continued beyond the site limit to the west and had been cut by, but did not extend beyond, curvilinear gully 400554 (19.5 x 0.62 x 0.24 m; Fig. 95.67) to the north-east. Gully 400557 produced a scant pottery assemblage probably dating to the 1st century AD. By contrast, curvilinear gully 400554 was a pot-rich feature (e.g., Fig. 178) and contained almost one-fifth of the pottery from Area 40 (by weight), with the great majority of that deriving from the feature’s eastern terminal. This material was of

Late Iron Age and early Romano-British date. Romano-British glass was also recovered from gully 400554.

6.25.20 The plot of land to the south of ditch 400549 was defined by a right-angled arrangement of gullies (400555 and 400556) and measured at least 22.5 m east–west by at least 12 m north–south. These gullies both cut the pot-rich curvilinear gully 400554; they were of similar dimensions to it and also contained early Romano-British ceramics, albeit in much more modest quantities. A further curvilinear gully (400558: 15.5 x 0.48 x 0.16 m) appeared to respect gully 400556 close to the southern LOE. Curvilinear gully 400558 had been cut in turn by an elongated, cigar-shaped pit (400559: 4.2 x 0.58 x 0.32 m), which produced Late Iron Age and early Romano-British ceramics.

6.25.21 A four-post structure (400553) lay within the area defined by gullies 400555 and 400556 close to the northern edge of the proposed southern plot of land. It measured 1.7 m square, and therefore was at the smaller end of the scale for such features, which are generally around 3 m square (Thomas 2011, 155). Its constituent postholes were 0.4 m in diameter by 0.1 m deep. All were artefactually sterile. Two outliers (400241 and 400536) were noted to the north-west and may have been associated with the four-post structure. Posthole 400536 was recorded as belonging to the pre-alluvial phase of activity on the site but given its position within the overall regular arrangement it seems likely that relates to this later phase, though only identified following removal of the alluvium.

6.25.22 A ring gully (400150) was revealed in the south-eastern corner of Area 40 (Fig. 177). This was a little irregular in plan, with a maximum external diameter (on its north-east to south-west axis) of 6.7 m; it enclosed an area of approximately 50 m². The gully formed a complete circuit with no obvious entrance. It had a steep, bowl-shaped profile with a concave base, and was typically 0.5 m wide and 0.27 m deep, with either a dark greyish black or mid-orangey grey sandy silt fill. The relatively steep-sided cut (Fig. 95.68) suggests this was a footings trench rather than a drip gully. Some form of small roundhouse or shelter seems likely here. Ring gully 400150 contained handmade pottery of prehistoric date, as did the small gully (400561:5 x 0.45 x 0.2 m) investigated within the interior of the ring gully (and recorded as being cut by it). Four small postholes (400142, 400144, 400146 and 400148; typically 0.25 m diam. x 0.2 m deep) also lay within the footprint of the ring gully. They formed no regular pattern and none contained any finds.

6.25.23 Two gullies (400011, 400378) and a pit (400009) were recorded south of ring gully 400150. These may have been related to its use, with some potentially dug for drainage around the structure. A small amount of pottery of general prehistoric appearance was recovered from these features.

6.25.24 Finally with regard to Area 40, two north-east to south-west aligned linear features and a backward-facing ‘C’-shaped gully (400372) were recorded in its north-western corner, beyond ditch 400546. One of these features cut enclosure ditch 400545, and the other two appeared to respect the enclosure. None contained any finds. It is likely that they formed minor sub-divisions or attempts to ameliorate drainage conditions in this part of the site and suggest activity continued north of the principal enclosure, with the area around them potentially forming another plot of land.

6.26 Area 30

Introduction

6.26.1 Area 30 occupied 0.14 ha and was centred on NGR 534830, 361068. The stripped ground surface sloped down slightly from 7.4 m OD at the north-eastern LOE to 7.1 m OD at the

south-western LOE. The field in which Area 30 lay formed part of a low-lying flat agricultural landscape north-west of Stickford.

6.26.2 Geophysical survey revealed a ditch and the faint outlines of east–west furrows. (Headland Archaeology 2019, fig. 52). Evaluation works (NAL trench 48) revealed seven ditches, two pits and a gully. Prehistoric and Romano-British pottery was recovered, and the features were thought to represent field boundaries and possibly a nearby settlement (Wessex Archaeology 2021a).

6.26.3 Area 30 was stripped of overburden in August 2021, exposing ditches, gullies and pits forming part of a field system whose origins dated to the Late Iron Age, and which remained in use into the later part of the Romano-British period (Fig. 57). For a rural site, it is noticeable that Area 30 contained a good range of fine 'table ware' type vessels within its Romano-British pottery assemblage.

6.26.4 Twelve east–west furrows were also recorded, and seem to be the latest features on the site.

Soil deposit sequence

6.26.5 The geological substrate is mapped as Mudstone of the Kimmeridge clay formation, overlain by superficial deposits of diamicton till (BGS 2022). The latter material comprised the site 'natural', which was recorded during the fieldwork as a pale brown clayish sand with darker sandy patches, frequent angular flints and occasional small subrounded chalk fragments. The ploughsoil was approximately 0.30 m thick and comprised a brown clayey sand.

6.26.6 A mixed pottery assemblage containing Romano-British, medieval and post-medieval sherds was retrieved from the ploughsoil.

Iron Age–early Romano-British

6.26.7 Ditch 300150 (max. 1.64 m wide by 0.57 m deep) followed a north-east to south-west alignment for around 15 m in the northern part of the site. Its northern and southern terminals had been heavily truncated by later ridge and furrow cultivation. Late Iron Age and Iron Age tradition type pottery was retrieved from its fill during both the mitigation and evaluation fieldwork. It had been cut by the terminal of ditch 300149 (see below; Fig. 96.69) and a short, narrow spur gully (300134: 1.20 x 0.24 x 0.08 m) on its western side.

6.26.8 Ditch 300152 (34 x 0.70 x 0.24 m; Fig. 179) may have continued the south-westward course of ditch 300150 and lay 6 m to its south. It was stratigraphically early, being cut by four of the five features that crossed it, and it contained pottery of probable Late Iron Age manufacture. Together, ditches 300150 and 300152 may have formed the earliest boundary recorded at the site, with a combined length in excess of 53 m.

6.26.9 Ditch 300152 had cut gully 300053/300065 (9.5 x 0.70 x 0.36 m). This lay at 90 degrees to ditch 300152 on its western side and did not extend beyond it, raising the possibility that they had been set out at the same time although, if so, the maintenance of 300152 would have outlasted that of the gully. Gully 300053/300065 contained worked flint, animal bone and Romano-British pottery.

6.26.10 A 5 m long gully (300013/300030: 0.72 x 0.20 m) extended north-west of the southern end of ditch 300152. An intervention at the apparent intersection of the two features found them to be separate. A small group of handmade sherds of Late Iron Age to early Romano-British manufacture was recovered from gully 300013/300030 suggesting, in support of their layout

in plan, that this feature and ditch 300152 were contemporary. The north-western end of gully 300013/300030 had been removed a by a furrow.

Romano-British

6.26.11 The northernmost ditch (300136/300138: >15.5 x 2.26 x 0.63 m) contained late 1st to early 2nd-century AD pottery in both its original cut and its recut. This feature can be seen within the geophysical survey data continuing to the west. Approximately 42 m to the south, ditch 300153 (max. 2.85 x 0.91 m; Figs 96.70 and 180), shared the alignment of ditch 300136/300138 and had similar fills to that feature. Finds retrieved from ditch 300153 include animal bone, Romano-British glass and a range of Romano-British pottery dating between the mid-1st and 3rd centuries. This feature contained the majority of the pottery recovered from the site. If these two boundaries had been constructed at the same time, the southernmost appears to have been longer-lived.

6.26.12 The majority of the features lay within the area defined by the two boundary ditches described immediately above. Their arrangement and dating suggest most formed part of the same field system of overall Romano-British date, although this shows evidence for having changed and developed over time.

6.26.13 Recut ditch 300149 (>10.53 x 2.18 x 0.35 m) ran from the western LOE towards the south-east where it terminated. The fill of its recut was a notably dark grey clayey sand. Pottery dating to the 1st to early 2nd century was retrieved from both the original cut and its recut. As mentioned above, ditch 300149 cut ditch 300150, with the pottery dates corroborating the stratigraphic sequence.

6.26.14 Gully 300109/300113 (>4.2 x 0.22 x 0.09 m) ran parallel to ditch 300149 and also terminated to the south-east. The gully cut an oval pit (300096: 1.04 x 0.48 x 0.33 m) which contained mid-1st to 2nd-century pottery. A smaller gully (300094/300115: 1.40 x 0.19 x 0.06 m) ran to the north-east from pit 300096. No relationship was found between the smaller gully and the pit.

6.26.15 A little over 10 m to the south, gully 300111 (3.53 x 0.76 x 0.12 m) curved towards the south-east from the western LOE where its continuation was investigated during evaluation works (gully 4807). In the evaluation the gully was recorded as being cut by an east–west feature (recorded during the mitigation as 300042/300098–see below). Late 1st to early 2nd-century pottery was retrieved from the fill of gully 300111.

6.26.16 Gully 300032/300044 (2.82 x 0.39 x 0.08 m) lay at 90 degrees to most of the features on the site; it produced a small group of sherds including grey ware and material of mid-1st to 2nd-century date. A pit (4809) investigated during the evaluation may represent its original southern terminal, with the feature having been truncated by a later furrow. Pit 4809 also contained grey ware.

6.26.17 Two broadly east–west linear features (300042/300098: >9.65 x 1.22 x 0.49 m; 300063/300080: 9.26 x 0.77 x 0.35 m) lay in the vicinity and, as mentioned above, both cut ditch 300152. Both features contained Romano-British pottery, with the most diagnostic sherds being of late 1st–early 2nd-century date and deriving from 300042/300098.

6.26.18 Close to the eastern LOE, a lozenge-shaped arrangement of two pits (300105/300107: 1.06 x 0.8 x 0.29 m) contained a dark grey sandy clay fill with pottery dating between the mid/late 1st century and 2nd century.

Medieval/post-medieval

6.26.19 Seven furrows (300003, 300005, 300008, 300009, 300025/300074, 300055/300069 and 300046/300101) out of 12 crossing the site were investigated. They shared the same east–west alignment and had an average width of 2.25 m and depth of 0.21 m. Medieval pottery (late 13th–15th century) was retrieved from furrow 300005, and residual sherds of possible Romano-British date came from furrows 300046/300101 and 300055/300069.

Undated

6.26.20 No finds were retrieved from the fill of a ditch terminal (300048: >1.67 x 0.40 x 0.15 m) that extended into the site from the western LOE between ditch 300149 and gully 300111.

6.26.21 A pit (300086: diam. 0.40 x 0.09 m) and a short length of gully (300088; 1.60 x 0.28 x 0.28 m) immediately west of curved gully 300111 were both artefactually sterile.

6.26.22 Two further artefactually sterile pits (300038: 0.50 x 0.20 x 0.19 m; 300034: 0.30 x 0.17 x 0.13 m) lay less than 1 m north of ditch 300053/300065.

6.26.23 Ditch 300151 ran parallel with ditch 300152 and lay 5 m to the east of that feature. It was at least 24 m long and continued beyond the south-eastern LOE. Despite its proximity to, and shared alignment with, ditch 300152 and pits 300105/300107, no finds were recovered from its fills and so it remains undated. Ditch 300151 did, however, pre-date the ridge and furrow, and seems likely to have had a role within the ancient field systems at Area 30.

6.27 Area 41

Introduction

6.27.1 Area 41 occupied 0.07 ha, was centred on NGR 534634, 360764, and lay immediately to the south of the former runway of RAF East Kirkby. The stripped ground surface lay at 4.2 m OD, with no slope discernible. The field in which Area 41 lay was agricultural land at the time of the excavation.

6.27.2 The geophysical survey revealed traces of linear features thought to relate to enclosures or elements of a field system (Headland Archaeology 2017b, fig. 75; 2019, fig. 53–54). Evaluation trenching (NAL trench 135) recorded four ditches and two pits. One of the ditches contained five sherds of prehistoric, possibly Iron Age, pottery.

6.27.3 Area 41 was stripped of overburden in July 2021, revealing boundary ditches, smaller linear features and curvilinear gullies; two of the curvilinear examples formed a partial ring gully (Fig. 58). Apart from one modern sherd, all of the pottery from the site is prehistoric in date, some is of Iron Age appearance, other sherds appear earlier, but few of the features are convincingly dated. One east–west ditch matches a boundary shown on historic OS mapping.

Soil deposit sequence

6.27.4 The geological substrate is recorded as Mudstone of the Kimmeridge clay formation, with superficial deposits of till. The till was encountered approximately 0.47 m below the existing ground surface and comprised a compact mid-yellowish grey silty sand.

6.27.5 Fairly compact mid-brown silty clay subsoil was intermittently present, around 0.15 m thick. The ploughsoil, 0.32 m thick, comprised a fairly loose dark brown silty clay.

Prehistoric

6.27.6 Two curvilinear gullies appear stratigraphically early. Gully 410008/410012 (0.65 x 0.28 m; Fig. 97.71) extended from the western LOE for 10 m. It was cut at its eastern end by ditch 410124 (which produced prehistoric pottery), but did not continue beyond it, indicating the feature terminated within the site limit. The other stratigraphically early gully, 410125 (0.57 x 0.19 m), lay 4.5 m to the south. A 10 m-length was visible on the site, with a further 2.5 m exposed in evaluation trench 135. It may have originally formed a circle of around 12.5 m diameter; a terminal was apparent at its northern end, although this was shallow and poorly defined, implying the terminal may be product of truncation rather than reflecting the original arrangement. Cremated human bone (60.2 g deriving from a subadult/adult) was found in the central of the three slots dug across gully 410125. A small group of handmade briquetage or pottery fragments, possibly prehistoric in date, was also recovered from this feature, which may represent a roundhouse (drip) gully.

6.27.7 North–south ditch 410124 (>21 x 1.95 x 0.60 m; Fig. 97. 72) extended beyond the site limits in both directions, and its southward continuation may have been exposed in evaluation trench 135 as 13509); if this proposed correlation is correct, it would indicate the feature had a slightly more curvilinear shape in plan overall. Ditch 410124 contained prehistoric pottery in handmade vesicular and quartz-gritted fabrics, with prehistoric, possibly Iron Age, pottery found in its apparent continuation trench 135. Ditch 41024 had cut gully 410008/410012 and had been cut by post-medieval/modern ditch 410021/410084 (see below).

6.27.8 A linear spread of mid-grey brown silty sand (410115: thought to represent natural silting in a depression, up to 0.21 m thick) to the north of the circular feature formed by gullies 410120 and 410121 (see below) contained pottery of probable prehistoric date.

6.27.9 A recut boundary (410095/410101/ and 410062/410069) was present at the southern edge of the site. This was principally defined by a 2.5 m wide, 0.65 m deep ditch, which at its western end appeared to have replaced an earlier, narrower ditch with a steeper profile (Fig. 97. 73), although this sequence was not repeated in the eastern intervention across the boundary. Prehistoric pottery, some of an earlier prehistoric appearance, was recovered from the stratigraphically earliest cut recorded within both interventions. Worked flint and animal bone were also recovered from the recuts of this ditch. A north–south ditch with a well-defined terminal (410107/410089: 2.4 x 0.55 m) appeared to respect this boundary and continued beyond the southern site limit: a single handmade flint-gritted sherd of earlier prehistoric appearance was recovered from its terminal.

Post-medieval/modern

6.27.10 East–west ditch 410021/410084 (2.45 x 0.49 m) matches a boundary shown on historic OS mapping. It extended beyond the LOE to the east and west, and cut north–south ditch 410124. The environmental remains from slot 410021 include a diverse assemblage of waterlogged wild plant remains.

6.27.11 The excavation area was raked by a number of land drains on a variety of alignments. Such variation may reflect the lack of a dominant drainage fall within this very flat landscape.

Undated

6.27.12 Two curvilinear gullies towards the southern end of the site may have defined a ring gully (Fig. 181), although the 'circle' they formed was somewhat irregular, and it is possible they represent the partial remains of two separate structures. Gully 410120 (0.45 x 0.22 m; Fig. 97. 74) was the northern feature and gully 410121 (0.54 x 0.19 m) the southern. If these

gullies had defined a single feature, it would have had an internal diameter of around 5 m. Something of this size might be more likely to be a drainage gully around a hayrick or wood pile for example, rather than representing a roundhouse. A single sherd of modern (mid-19th-century) pottery along with a piece of modern CBM (drainpipe/field drain fragment) were recovered from gully 410120, and would suggest a modern date, although the form of the parent feature might imply the material is intrusive.

6.27.13 A closely set pair of pits (410116 and 410118) lay 1.5 m north-east of gully 410120 and may have been associated with it. These had a diameter of 0.47 m and 0.34 m respectively and were both 0.2 m deep, with dark greyish brown sandy fills (Fig. 182). Approximately 2.3 m further to the north-east, another pit, this around 0.85 m in diameter, had been investigated in evaluation trench 135. No other pits were found on the site, possibly increasing the likelihood that they were associated with the putative ring gully.

6.28 Area 31

Introduction

6.28.1 Area 31 lay 117 m south-west along the cable route from Area 41. It occupied 0.23 ha and was centred on NGR 534510, 360575. The stripped ground surface was highest at the south-west and north-east LOE (3.5 m OD) and lowest at the centre (3.15 m OD). Area 31 was set within low-lying, flat agricultural land north-west of Stickford.

6.28.2 The geophysical survey revealed faint traces of linear features (Headland Archaeology 2017b, fig. 76). Three evaluation trenches (NAL 139, 140 and 150) were dug within the area that went on to become Area 31; these indicated the presence of Romano-British field boundaries. Prehistoric pottery, including Middle or Late Iron Age scored ware, was also recovered.

6.28.3 Area 31 was stripped of overburden in August 2021, to expose ditches, gullies, pits, an occupation layer and a modern hedgerow (Fig. 59). In the central part of the site, a deposit of alluvial material (310003 and 310084; see below) sealed some features but had been cut by others. All of the dated pottery from the site is prehistoric, with some Middle or Late Iron Age material present. Area 31 generated a relatively large assemblage of worked flint (25 pieces), although most of this was collected from the stripped ground surface and other unstratified contexts.

Soil deposit sequence

6.28.4 Bedrock geology is recorded as Mudstone of the Kimmeridge clay formation, with superficial deposits of sand and gravel (BGS 2022). The superficial deposits presented as a mixed yellowish grey brown sand, which formed the site ‘natural’.

6.28.5 Within the northern part of the site, a layer of reddish brown alluvium (310003) was interleaved between groups of cut features.

6.28.6 A fairly compact yellowish brown silty clay subsoil, around 0.23 m thick, was intermittently present. A 0.30 m-thick greyish brown silty clay topsoil covered the site prior to the fieldwork.

Prehistoric/Iron Age

Pre-alluvium

6.28.7 A group of postholes and other – not fully seen – features found sealed beneath an alluvial build-up (310003 and 310084; see below) may be amongst the earliest recorded on the site. These are tabulated below:

Table 6 Area 31: early features

Cut number	Dimensions (L x W x D)	Shape in plan	Fill	Finds
310134	>0.61 x 0.34 x 0.18	Not fully seen	Orange grey silty clay	Animal bone
310145	1.06 x >0.8 x 0.36	Linear/not fully seen	Orange yellow clay	N/A
310149	Diam. 0.24 x 0.08	Subcircular	Grey sandy clay with orange mottling	N/A
310151	0.26 x 0.16 x 0.06	Subcircular	Grey sandy clay with orange mottling	N/A
310153	>0.78 x 0.57 x 0.33	Not fully seen	Blueish orange silty clay with reddish mottling	N/A
310155	0.31 x 0.24 x 0.08	Subcircular	Reddish grey sandy clay	N/A

6.28.8 These features were overlain by a two-layer sequence: first, a blackish orange sandy clay (310084; 0.14 m thick, not illustrated), which was sealed in turn by a reddish brown silty clay (310003; 0.17 m thick) thought to be of alluvial origin.

Post-alluvium

6.28.9 Three ditches were recorded cutting the alluvium (310003) and therefore post-dated the features tabulated above. These appeared to delimit the area containing the alluvium and were: ditch 310170 (up to 1.9 m wide by 0.48 m deep; Fig. 98.75); ditch 310171 (up to 1.44 m wide by 0.47 m deep; Fig. 183) and ditch 310175 (1.79 m wide by 0.35 m deep). The first and last of these three features showed signs of recutting. The trio produced an artefactual assemblage comprising prehistoric pottery, including sherds possibly of Iron Age date, animal bone, worked flint, fired clay and stone. Ditch 310170 supplied approximately half of the 4 kg artefactual assemblage from Area 31 and so was a particularly finds-rich feature for the site.

6.28.10 A thin layer of black silty sand (310083: 4.9 x >0.8 x 0.05 m, not illustrated) was recorded overlying alluvium 310003 in one sondage; this contained prehistoric pottery and animal bone.

6.28.11 A north-west to south-east aligned gully (310165: 0.60 x 0.32 m) was only visible in a sondage dug through alluvial layer 310003 (Fig. 98.76). Prehistoric pottery was retrieved from its fill.

Features unrelated to alluvium

6.28.12 At the south-western end of the site, a ditch (310147/310157: max. 1.84 m wide by 0.37 m deep), three gullies (310173; 310174 and 310106/310141 – Fig. 98.77) and a nearby cluster of pits and postholes (310110, 310112, 310114, 310116/310118, 310120 and 310122 contained an assemblage of prehistoric pottery including Iron Age scored ware, animal bone and struck flint. Fragments of jet were recovered from ditch 310157. These finds are complemented by sherds of Middle to Late Iron Age pottery recovered from gully 13905/13916 investigated in an evaluation trench just to the south of this area, and so confirms it as a second focus of Iron Age activity on the site. The discrete features were

generally subcircular in plan. They measured from 0.23 m to 0.91 m across and their depths ranged from 0.09 m to 0.23 m. A grey brown silty sand was recorded in each. Three of these features (310116/310118, 310114 and 310112) followed a north-west to south-east alignment, but apart from this there was no pattern to their distribution.

6.28.13 Approximately 25 m from the north-eastern LOE, a layer of dark grey clay silt was investigated (310012: 2.55 x 1.7 x 0.26 m). This did not appear to be filling a regular cut, but instead resembled a localised occupation layer overlying undulations in the natural ground surface. It contained prehistoric pottery, an unusual possible copper alloy bead, animal bone, iron and burnt flint. Layer 310012 had been disturbed by two land drains.

Modern

6.28.14 The base of a modern hedgerow (310023) crossed the north-eastern limit of the site on a north-west to south-east alignment.

6.28.15 Two ditches (310172 and 310021/310026) crossed the site on a WNW–ESE alignment, which matched that of some modern land drains recorded nearby. Ditch 310172 contained modern metalwork (a rusted screw or similar fixing), strengthening the impression that this pair of features was of no great age.

Undated

6.28.16 A lack of artefactual evidence means that two gullies (310078/310085: >13.3 0.55 x 0.27 m; Fig. 98.78, and 310081/310125: >11.5 x 0.84 x 0.4 m; Fig. 184) towards the south-western end of the site cannot be dated. The latter, however, appeared to have been cut by ditch 310172, for which a modern date has been suggested above.

6.28.17 Area 41 was the southernmost excavation area within Zone 2, and the following sites all lay within Zone 3, which lies within the south-east Lincolnshire Fens.

6.29 Area 50

Introduction

6.29.1 Area 50 occupied 0.05 ha centred on NGR 525085, 349184, on the west bank of the River Witham in Holland Fen. It lay approximately equidistant between Boston and Billinghay (around 8 km to the north-west and south-east) and was in use for arable agriculture at the time of the excavation. The stripped ground surface lay at around 1.8 m OD.

6.29.2 The geophysical survey detected natural and agricultural anomalies (Magnitude Surveys 2020, fig. 27–29). Evaluation trench 428, which lay 9 m to the south-east of Area 50, revealed two ditches; these correlated with plot boundaries for a building visible on the 1888 OS map and since demolished (Wessex Archaeology 2021c). One ditch was found to contain modern (20th century) pottery and handmade brick, which may well be related to the mapped building, which lay some 15 m to the south-east of Area 50.

6.29.3 Area 50 was stripped of overburden in September 2021. The works exposed four ditches (Figs 60 and 185).

Soil deposit sequence

6.29.4 The geological substrate is recorded as Mudstone of the Ampthill clay formation, overlain by clays and silts of the Tidal Flat Deposits (BGS 2022). This latter material equated to the site ‘natural’, which was encountered approximately 0.50 m below the existing ground surface and comprised greyish yellow sandy clay. Fairly compact pale brown clayey sand

subsoil, around 0.2 m thick, was intermittently present. A fairly loose mid-brown sandy clay topsoil, 0.30 m thick, covered the area.

Post-medieval/modern

6.29.5 All four features ran on a north-west to south-east alignment. They were 1.25–2.25 m wide and lay 1.48–3.40 m apart. All contained a brown clayish sand fill; that in ditch 505009 had a slightly greyer hue. Ditch 505009 correlated with ditch 42805/42808 from the evaluation, which had contained the modern material. As none of the features in Area 50 appeared to be of significant archaeological interest, they were recorded but not investigated further, in accordance with the strip and map methodology set out in the WSI (Wessex Archaeology 2021b).

6.29.6 No structural remains associated with the building shown on historic mapping were encountered in Area 50.

6.30 Area 51

Introduction

6.30.1 Area 51 occupied 0.33 ha centred on NGR 521820, 346131, 3.2 km north of Swineshead Bridge. The stripped ground surface was level and lay at around 1.2 m OD (Fig. 186). The field in which Area 51 lay was farmed former fenland between Clay Dike and Skerth Drain.

6.30.2 The geophysical survey revealed ditch-like anomalies of possible archaeological origin, along with agricultural and natural signals (Magnitude Surveys 2020, fig. 48–51). These were examined by trenches 465 and 466 (Wessex Archaeology 2021c). Evaluation trench 465 revealed a boundary marked on historic OS mapping; it was found to contain post-medieval (late 18th and early 19th century) pottery. Trench 466 contained two ditches parallel with both extant and grubbed-out field boundaries; post-medieval pottery (late 17th to 18th century) was recovered from one of these also.

Soil deposit sequence

6.30.3 The geological substrate is recorded as Mudstone of the Ampthill clay formation, overlain by clays and silts of the Tidal Flat Deposits (BGS 2022). This latter material represents the site ‘natural’, which was encountered approximately 0.50 m below the existing ground surface and comprised yellowish brown clayey sand. A compact pale sandy clay subsoil, 0.2 m thick, was intermittently present. The mid-brown sandy clay topsoil was 0.30 m thick.

Post-medieval/modern/undated

6.30.4 Area 51 was stripped of overburden in September 2021, revealing five ditches, one—or perhaps two—of which (510008 and 510010) represented the same modern boundary that had been investigated in trench 465 (Fig. 61). A curving feature (510012: 1.4 m wide; filled with grey clay), was seen in the northern part of the site. To judge by the geophysical evidence, ditch 510010 (which probably formed an element of the modern boundary recorded in evaluation trench 465) may represent its return to the south, although the clay fill here was browner.

6.30.5 As with Area 50, Area 51 was examined using a strip and record methodology, and so the features were recorded but, in light of their apparently limited archaeological potential, not investigated further. Historic mapping shows a building complex marked as ‘Three Hundreds’ around 50 m to the south-west of the southern end of Area 51, but no structural remains associated with this were exposed on the site.

6.31 Area 52

Introduction

6.31.1 Areas 52–55 were located relatively close together, within the same 1.7 km stretch of the cable corridor, and with no more than 215 m of unexcavated ground between any two of them. These sites were bordered by Holland Dike to the west and Skerth Drain to the north and east. The boundary of the civil parish of Swineshead follows both watercourses hereabouts. The southern limit of the strip of land bordered by these watercourses, which is named as 'Mown Rakes' on both modern and historic OS mapping, is formed by the A17 where it runs between East Heckington and Swineshead Bridge.

6.31.2 Mown Rakes is low-lying flat active agricultural land, with the modern ground surface lying at around 2 m OD, with little topographical variation.

6.31.3 Area 52 occupied 0.60 ha and was centred on NGR 521484, 345609, at the northern end of Mown Rakes. The ground surface was largely flat with a slight drainage fall from south-west to north-east: the stripped ground surface at the south-western LOE lay at 1.5 m OD; 460 m to the north, at the north-eastern LOE, it was at 0.8 m OD.

6.31.4 Geophysical survey revealed mostly geological anomalies (Magnitude Surveys 2020, fig. 51–56). Evaluation trenching (WA trenches 469–473) revealed, in trench 469, a spread with pottery from the 2nd century AD. A boundary investigated in trench 470 produced further pottery of the 2nd century AD. Trench 471 contained an undated re-cut ditch, however three sherds of 2nd-century pottery were recovered residually from the fill of a nearby land drain. Other ditches in trenches 472 and 473 were artefactually sterile (Wessex Archaeology 2021c).

6.31.5 Area 52 was stripped of overburden in September 2021. The works exposed various ditches and lozenge-shaped pits or short ditches, alongside spreads, circular pits and hedgerow remains (Figs 62 and 63). The archaeological features are concentrated in the central/northern part of the site, with pottery dates indicating a focus of activity within the Romano-British period, namely, the mid- to late 2nd century AD. Finds of briquetage from some of the features, including some that also contained Romano-British pottery, suggest saltmaking was undertaken nearby, although no convincing evidence of *in situ* salterns (e.g., saltmaking hearths) was apparent.

Soil deposit sequence

6.31.6 The geological substrate is recorded as Mudstone of the Ampthill clay formation, with superficial deposits of clay and silt of the Tidal Flat Deposits (BGS 2022). These were recorded as the site 'natural' and here comprised a light greyish yellow sand, which lay directly beneath a 0.30 m thick dark greyish brown silty sand ploughsoil.

Romano-British

6.31.7 At the northern end of Area 52, a reverse 'L'-shaped feature was investigated (520130: >30.2 x 1.26 x 0.24 m; Figs 99.79 and 188). When evaluated, its northern terminal (47007) had been found to contain a fragment of rim from a 2nd-century Black Burnished ware jar. No further pottery was found when the feature was investigated within Area 52, although animal bone and intrusive CBM (field drain fragments) were recovered. Another right-angled length of ditch just to the east (520192: 20 x 1.13 x 0.2 m) may have been associated with ditch 520130; this proved to be undated, although it too contained animal bone. These features were northern outliers, with most of the archaeological evidence focussed on a small area 50 m to the south.

6.31.8 A broadly east–west recut ditch appears to have marked the northern boundary of the area that witnessed the most intense pottery deposition during the Romano-British period. The original ditch (e.g., 520152) was relatively large (2 x 1 m) and had been recut by a slighter ditch (e.g., 520147: 1.1 x 0.4 m) on its northern side. Pottery of the mid-2nd–3rd century AD was recovered from both the original ditch and its recut. Recut 520147 also contained a *tegula* of mid-2nd to mid-3rd-century AD date.

6.31.9 A line of four lozenge-shaped pits or short lengths of ditch ran down the centre of the stripped area in a south-westward direction from the northern boundary ditch. These are summarised in table 7 below.

Table 7 Area 52: summary of lozenge-shaped features

Cut/group	Dims (m)	Fills (upper/lower	Finds
520064	2.15 x 1.00 x 0.11	Dark blackish grey sand Pale greyish brown sand	Pottery (mid-1st–2nd century AD, medieval Cistercian ware, modern Creamware)
520070/520118	8.15 x 1.15 x 0.36	Dark grey sandy loam Mid-orangish grey sandy loam Mid-yellowish brown silty loam Pale grey silty sand	Pottery (late 1st–2nd century), Romano-British CBM, fired clay, animal bone
520194	10.72 x 1.8 x 0.23	Greyish black silty clay	Romano-British pottery, fired clay, animal bone
520067	3.54 x 1.12 x 0.28; Fig. 99.80	Brown sandy silt Grey sand Orange brown sand	Romano-British pottery, fired clay, animal bone

6.31.10 A shallow pit with briquetage, 520080, was recorded immediately south-west of pit 520067, the southernmost of the lozenge-shaped features tabulated above. Pit 520080 was 3.3 m in length by at least 1.72 m wide (it continued beyond the north-western LOE) and had a depth of 0.14 m. It was filled with a mid-grey sandy clay from which over 0.5 kg of saltmaking-associated ceramics were recovered. These were mostly found in an irregular spur at the feature's southern end. The absence of any sign of scorching of the underlying natural, and general lack of charcoal from the fills of the feature, would suggest it was not a saltern. Briquetage was also found in other features nearby: ditch 520094/520096 (>6.6 x 1.7 x 0.35 m); pit 520027 (2 x 1.47 x 0.6 m; Fig. 187); pit/ditch terminal 520107/520153 (>4.3 x 2.03 x 0.55 m), and gully 520079/520138 (4.15 x 0.7 x 0.33 m). All but 520094/520096 also contained Romano-British pottery, with the most distinctive wares being mid–late 2nd-century AD in date.

6.31.11 There were three other small features that contained Romano-British pottery, but no briquetage, in this part of the site: 520048, 520099 and 52103.

6.31.12 Approximately 80 m to the south-west of this focus of activity, further briquetage was recovered from both east–west gully 520040/520124 (0.76 x 0.20 m) and an overlying spread of dark grey silty clay with abundant charcoal (520039: 6.3 x 3 x 0.13 m). Spread 520039 extended beyond the north-western LOE, where its continuation tallied with a prominent linear geophysical anomaly. As well as briquetage, east–west ditch 520040/520124 also contained articulated cattle bone (skull, mandibles and upper vertebrae).

Post-medieval/modern

6.31.13 Ditch 520024/47111 (3.1 x 0.72 m) crossed the central part of Area 52 on a broadly east–west alignment. In its position and course it matches a field boundary shown on 19th-century mapping. Stoneware of 18th-century date was recovered from the feature at the evaluation stage.

6.31.14 A modern cow burial (520114/520115; Fig. 189) was found in the vicinity of dark grey silty clay spread 520039. The skeleton had been cut by a ceramic land drain, and was otherwise undated, but appears to be of a modern breed.

Undated

6.31.15 Undated discrete features on the site included 520006 (1.2 m diam. x 0.13 m) and 520029 (>0.78 x >0.71 x 0.2 m; Fig. 99.80). Their fills contained charcoal and frequent flecks of heat-affected clay, but no datable artefacts. A layer of dark blackish grey sandy clay was recorded in the base of pit 520029. It is possible that these two pits were linked to the activity that led to the presence of briquetage in other features on the site.

6.31.16 A handful of short linear features (e.g., 520062/520097: >15.5 x 1.8 x 0.14 m; 520134/47205: >28.5 x 3.1 x 0.26 m and 520140: 20.3 x 2.9 x 0.18 m) were investigated towards the southern end of Area 52 and were interpreted as the remains of a hedgerow/hedgerows on account of their disturbed profiles. None are immediately datable, and most were artefactually sterile, although 520134 contained animal bone and fired clay.

6.32 Area 53

Introduction

6.32.1 Area 53 lay 185 m south of Area 52 and occupied 0.37 ha centred on NGR 521196, 345029. The stripped ground surface was at around 1.3 m OD at the northern LOE, about 1.7 m OD in the centre of the site, and 1.4 m OD at the southern LOE. Due to features extending beyond the site boundary to the north-east, the mitigation area was extended by 140 m in that direction.

6.32.2 The geophysical survey revealed numerous geological anomalies (Magnitude Surveys 2020, fig. 54–59). Evaluation trenches (WA trenches 475–477) exposed ditches, a palaeochannel and a wheel rut (Wessex Archaeology 2021c).

6.32.3 Area 53 was stripped of overburden in September 2021. In the northern part of the excavation area the works exposed a large curvilinear ditch truncated and surrounded by pits, some of which had evidence of burning or waste material from burning, and from which a substantial assemblage of briquetage was recovered, representing, overall, a probable saltmaking facility. A large ditch, ponds and a palaeochannel were also recorded in the northern half of the excavation area (Fig. 64). The centre and southern part of the area had ditches, some forming a small rectangular enclosure, gullies and a cremation-related deposit (Fig. 65). Datable ceramics were entirely Romano-British, with an emphasis on material of the 2nd–3rd century AD (i.e., a little later than Area 52 just to the north).

Soil deposit sequence

6.32.4 The geological substrate is recorded as Mudstone, Siltstone and Sandstone of the West Walton, Ampthill and Kimmeridge clay formations, overlain by clay, silt and sand alluvium (BGS 2022). The alluvium formed the site ‘natural’, which was recorded as a fine greyish yellow sand. A 0.45 m-thick fine brown sandy clay ploughsoil covered the site at the commencement of fieldwork.

Iron Age/Romano-British

6.32.5 A curvilinear ditch (530296: 2.5 x 0.51 m; Fig. 100.81–2) extended west from the eastern LOE at the north of Area 53 and curved to the south and south-east. It may have formed part of a subcircular or suboval enclosure. It contained two sandy reddish grey silt fills in most slots, with some evidence of recutting. It cut a probable palaeochannel at the north but was itself truncated by another probable palaeochannel to the south, suggesting a concern with drainage and water supply hereabouts. Several slots within the ditch contained a significant quantity of briquetage, dated to between the Middle to Late Iron Age and into the 2nd century AD. The ditch was cut by several pits, 530234 (>5.91 x 0.7 x 0.21 m), 530238 (>1.5 x 2.3 x 0.55 m) and 530257 (2.9 x 2 x 0.4 m), all of which also contained fragments of briquetage as well as structural fragments of fired clay, probably of hearth floor. Pit 530238 also had evidence of *in situ* burning.

6.32.6 A number of other pits located in the vicinity of ditch 530296 also produced substantial amounts of briquetage and structural ceramic fragments. Pit 530202 (3.1 x 2.4 x 0.17 m; Figs 100.83 and 192) was located within the area enclosed by the ditch. It contained three clay fills, one of which had evidence of burning. Pits 530209 (1.65 x 1.5 x 0.43 m) and 530212 (1.64 x 1.24 x 0.43 m) were located next to each other on the northern external edge of the ditch. Both contained sandy silt fills with charcoal inclusions. The assemblage obtained from these various features is indicative of salt processing activity and pits 530209, 530212 and 530238 may represent the remains of salterns, with the ditches and palaeochannels dug or modified to carry saline water. The charcoal evidence from pits 530202 and 530238 indicate wet woodland in the nearby environment.

6.32.7 Pit 530198 (2.44 x 1.79 x 0.13 m), located next to 530202, and irregular discrete feature 530229 (2.21 x 2.1 x 0.16 m), interpreted as a tree-throw hole, which was located on the southern outside edge of ditch 530296, both contained small amounts of briquetage.

6.32.8 In the centre of the excavation area, north-west to south-east aligned ditch 530300 (1.55 x 0.28 m) continued beyond the LOE in both directions. A small assemblage of Romano-British grey ware pottery, including mid-2nd to 3rd-century AD material, was recovered from the ditch. It was cut at its eastern end by ditch 530301 (19 x 2 x 0.45 m; Fig. 100.84), which produced a mixed assemblage including 3rd-century Romano-British pottery, amongst which were fragments from a number of vessels and bowls. Ditch 530301 was oriented north-east to south-west and curved eastwards at each end. These ditches may have formed part of an enclosure system. On its northern edge ditch 530300 cut ditch 530299 (20 x 0.6 x 0.15 m) and was cut by ditch 530139/530144 (>5 x 1.4 x. 0.46 m). Neither of these features produced any datable evidence. On its southern edge, ditch 530300 was cut by ditch 530154/530161 (>5 x 1 x 0.25 m), which produced a single piece of Romano-British grey ware pottery.

6.32.9 Two discrete features in this part of the excavation area, 530028 (2.36 x 1.9 x 0.2 m) and 530104 (1.82 m diam. x 0.18 m), interpreted as tree-throw holes, also produced pottery of Romano-British date, as well as some animal bone and, from 530104, a ceramic weight or slingshot of Iron Age or Romano-British date.

6.32.10 To the south of these features several gullies and discrete features produced significant quantities of Romano-British pottery. Gully 530099/530112 (>6 x 0.29 x 0.31 m) extended for approximately 6 m from the eastern edge of the excavation area on a south-east to north-west alignment then curved to the north-east where it terminated. It contained a small group of shell-gritted pottery sherds. To the immediate north-east was a short linear feature 530055 (2.24 x 1.23 x 0.28 m). A small group of pottery of mid-2nd-century date, including

grey ware, white ware and shell-gritted sherds, were recovered from this feature, as well as some animal bone. South of this, a short section of north–south oriented ditch, 530079/530013 (>6 x 1.15 x 0.16 m) also produced pottery of mid to late 2nd-century date, including grey ware, white ware and shell-gritted sherds, as well as a sherd from a samian ware cup and a grey ware sherd with a lattice decoration.

6.32.11 Nearby, ditch 530303 (12 x 0.85 x 0.28 m) was truncated by ditch 530302 (40 x 0.94 x 0.3 m), but probably originally continued to the south. Both ditches produced a small amount of Roman pottery, with a probable whetstone also found in ditch 530302. This boundary was cut by ditch 530304 (>20 x 1.54 x 0.21 m) to the south, but its relationship with ditch 530305 (>19 x 0.82 x 0.21 m) at its southernmost extent was unclear. Neither 530304 or 530305 produced any dating evidence. These ditches may have formed part of a ladder enclosure or similar enclosure system.

6.32.12 Ditch 530308 (28 x 1.03 x 0.35 m; Fig. 100.85) was located at the southern end of the excavation area. It had shallow, straight sides, a 'V'-shaped base and contained one or two sandy clay fills. A small group of shell-gritted sherds from a jar, dated to the 2nd or 3rd century AD, was recovered from one of its fills. Together, ditch 530308 and 530069/530090 (>10 x 0.92 x 0.38 m; Fig. 190) appeared to form part of a small rectilinear enclosure that was also investigated during the evaluation. It produced a group of shell-gritted and grey ware sherds also dated to the 2nd or 3rd century.

6.32.13 A small assemblage of Romano-British grey ware pottery sherds was also recovered from topsoil (530001) across the excavation area.

Undated

6.32.14 To the immediate south of ditch 530296, a large meandering ditch (530298: >50 x 2.79 x 0.32 m) crossed the excavation area from north-east to south-west where it intersected with a pond (530220: 30 x 10 x 0.65 m). The ditch was irregular in width and shape and had probably been subject to periodic flooding. At its northern end it cut ditch 530296. It ran parallel with the pond to the west and appeared to intersect it towards the south, although disturbance from land drains had destroyed the relationship between the two features. It may represent an overflow for the pond. A single sherd of modern pottery, probably intrusive, was recovered from a tertiary fill of the ditch, as well as some animal bone and CBM. The pond contained several laminated silty clay fills, evidence of periodic deposition. Animal bone was recovered and single piece of fired clay came from the basal fill. Mineral-coating on the grains indicates fluctuating water levels in the feature; the abundant presence of freshwater mollusc remains further tallies with the feature's interpretation as a pond.

6.32.15 A smaller pond or waterhole, 530169 (5.36 x >3.06 x 0.49 m; Fig. 191) was located in the same part of the site, on the eastern edge of the excavation area. The pond was subrectangular in shape, although it was only partially exposed, and had moderate, concave sides. Animal bone was recovered from its dark brown sandy silt fill. Features 530169, 530220 and 530298 may have been part of a wider scheme of water management.

6.32.16 The most northerly feature investigated in Area 53 was an east–west aligned gully, 530167/530171 (1 x 0.12 m) that extended for around 10 m from the eastern edge of the excavation area. It curved south at its western terminal. This feature was also investigated during the evaluation. No artefactual evidence was recovered at either stage.

6.32.17 Three artefactually sterile discrete features were investigated in the vicinity of ditch 530296. It is uncertain if any of these features were of anthropogenic origin: 530195 (>1.94 x 2.9 x 0.21 m), 530232 (0.5 x 0.44 x 0.06 m) and pit 530200 (1.14 x 0.78 x 0.12 m).

6.32.18 Two parallel north-west to south-east aligned ditches, 530306 (>30 x 3.8 x 0.9 m) and 530307 (>30 x 1.32 x 0.17 m), extended beyond both east and west limits of excavation in the south of the excavation area. Ditch 530306 intersected with 530304, although the relationship was unclear. This ditch had concave sides and base and contained one to three sandy or silty fills some of which produced animal bone. Ditch 530307 was smaller, very irregular and contained no artefactual evidence. Both ditches appeared to overlie palaeochannels on the same alignment. The ditches probably had a drainage function, perhaps representing different phases of the outer, southern boundary of an enclosure system.

6.32.19 Around 20 m south of these ditches a cremation-related deposit (burnt human bone deriving from an adult aged 18–40) was found in pit 530132 (0.92 x 0.6 x 0.15 m; Fig. 100.86). The deposit comprised a brownish black silty fill which contained frequent small fragments of burnt bone and charcoal. It had been disturbed by ploughing and bioturbation, however, it provided a sizeable amount of cremated bone. No artefactual evidence was recovered from the feature. Several small circular features which were initially thought to be possible stakeholes were present around the edges of the feature, one of which, 530137 (0.06 m diam. x 0.25 m), was investigated. These features did not form any particular pattern and similar features were observed elsewhere on site. It is thought they were formed naturally by vegetation.

6.32.20 Several linear features at the southern end of the excavation area may be related to the rectilinear enclosure formed by ditches 530308 and 530069/530090. North-west to south-east oriented ditch 530023/530122 (>10 x 1.1 x 0.22 m) was aligned with 530308 and appears to have continued its line. Around 13 m to the north, an elongated oval or short linear feature 530015/530084 (8.5 x 1.15 x 0.16 m) was on the same north-west to south-east alignment. It was interpreted as a hedgerow due to vegetation in its fill, but its orientation suggests a link with the enclosure system. To the west of this, only partially exposed within the excavation area, was curvilinear gully 530063/530084 (>10 x 0.45 x 0.16 m). None of these features produced any artefactual evidence.

6.33 Area 54

Introduction

6.33.1 Just 65 m separated Areas 53 and 54; Area 54 occupied 0.19 ha centred on NGR 521099, 344816. The stripped ground surface lay at around 1.8 m OD with no slope discernible. The field in which Area 54 lay was low-lying and flat, and in use for maize cultivation when the fieldwork occurred.

6.33.2 The geophysical survey detected a possible double-ditched enclosure or trackway (Magnitude Surveys 2020, 12, fig. 57–59). Evaluation trenching (WA trench 479) revealed six ditches on the same north-west to south-east alignment as the geophysical anomalies. One of the ditches (47910) produced a single sherd of late 1st to 2nd-century AD pottery (Wessex Archaeology 2021c).

6.33.3 Area 54 was stripped of overburden in September 2021. The works exposed a large, curved boundary ditch, a few gullies, a posthole and a cremation burial (Fig. 66). Finds evidence indicates activity on the site in the Romano-British period, with a post-medieval/modern field division also recorded.

Soil deposit sequence

6.33.4 The geological substrate is recorded as Mudstone of the Ampthill clay formation, overlain by clays and silts of the Tidal Flat Deposits (BGS 2022). These formed the site ‘natural’,

which was recorded as a very compact brownish yellow silty sand. It lay directly beneath a 0.30 m thick mid-brown sandy clay ploughsoil.

Romano-British

6.33.5 Gully 540050 (6.7 x 0.45–0.67 x 0.22–0.30 m deep) followed a north-west to south-east alignment and terminated in the north-west. It was cut to the south-east by boundary ditch 540049. One piece of pottery, a single grey ware sherd datable only to the Romano-British period generally, was recovered from the gully.

6.33.6 A curving ditch (540049: 2.93–4.62 x 0.17–0.49 m; Figs 101.87 and 194) 58 m in length was exposed, continuing beyond the eastern LOE. It correlated with the geophysical data as the outer ditch of a possible double-ditched boundary, and was the continuation of ditches 47910/47912 in trench 479. Recovered from its fills were animal bone and a piece of briquetage. The sherd of late 1st to 2nd-century AD pottery mentioned above as having been found during the evaluation also came from this feature. Its southern end had been cut by a modern ditch, from which further Romano-British pottery was recovered, his material possibly having been disturbed from curvilinear ditch 540049.

Undated

6.33.7 Gully 540015 (0.80 x 0.25 m; Fig. 101.88) crossed the northern part of Area 54 on a north-west to south-east alignment. No dating material was recovered. It did not match any boundaries visible on historic OS mapping, although its alignment does fit with the orientation of the existing fields.

6.33.8 Rectangular posthole 540033 (0.40 x 0.30 x 0.20 m) was uncovered adjacent to the north-western LOE near gully 540015 and ditch 540049. No dating evidence was recovered.

6.33.9 Feature 540003 (0.58 x 0.46 x 0.05 m; Fig. 193) was a shallow grave containing an unurned burial and redeposited pyre debris. Animal burrowing had caused the partial spread of the material to the south-west. Most of the recovered human bone comprised small fragments, however there were some larger, more diagnostic pieces, such as teeth, in the north-west excavation quadrant. The most identifiable bone fragments derived from an adult, possibly a male. No datable artefacts were uncovered. Charcoal within the feature's fill included large fragments of alder with evidence for insect burrowing. This would indicate the use of dead or rotten wood on the pyre, and a poor fuel source overall. The effects of this may be apparent within the bone, with some fragments being grey and other blue/black (i.e., not completely oxidised).

Post-medieval/modern

6.33.10 Ditch 540031/540042 (1–1.30 x 0.25–0.34 m) crossed the southern part of the site on a north-west to south-east alignment and cut curvilinear ditch 540049 (Fig. 101.89). An iron horseshoe, animal bone and five sherds of pottery were recovered from its fill. The pottery comprised three modern sherds and two of Romano-British date. Although the feature is not discernible within the geophysical data, its course and position match a land boundary depicted on historic OS mapping.

6.34 Area 55

Introduction

6.34.1 Area 55 lay 215 m south of Area 54. At 0.77 ha, it was the largest of the excavation sites. It was centred on NGR 521068, 344384 and lay 650 m to the north of the A17 where it runs between East Heckington and Swineshead Bridge. As with Areas 52–54, it was bordered by Holland Dike to the west and Skerth Drain to the north and east. The ground surface

within the stripped area descended very gently from 3.3 m OD at the southern LOE to 1.7 m OD at the northern LOE. Maize was being grown on the land at the time of the excavation.

6.34.2 The geophysical survey revealed very few anomalies of archaeological interest (Magnitude Surveys 2020, fig. 57–62). In contrast, trench evaluation (WA trenches 481–484) uncovered Romano-British features, some with deposits of high environmental potential, and evidence of a nearby pottery production site (Wessex Archaeology 2021c).

6.34.3 Area 55 was stripped of overburden in September 2021, with the original LOE extended to the north to follow archaeological features continuing in that direction. The works exposed multiple ditches and gullies and a large pond (Figs 67, 68 and 195). Ceramic dating suggests activity on the site began in the mid to late 1st century AD and continued until some time in the first half of the 3rd century AD. Romano-British pot production and saltmaking activity were indicated through, respectively, pottery wasters and briquetage, although there was no indication this had occurred on the site itself. The charred plant remain assemblage from the site is consistent with Romano-British settlement activities, with some evidence from the environmental remains for the malting of spelt wheat although, again, no crop-dryers were identified on the site itself. There was very little pot deposited following the Romano-British period, but a field boundary indicated on historic OS maps was encountered.

Soil deposit sequence

6.34.4 The geological substrate is recorded as Mudstone of the Ampthill clay formation, which is overlain by clay and silt of the Tidal Flat Deposits (BGS 2022).

6.34.5 The site 'natural' was recorded as a compact light brownish yellow silty sand. A fairly compact light brown sandy clay subsoil, around 0.20 m thick, was intermittently present above this. The subsoil was sealed by an approximately 0.30 m thick mid-brown sandy clay ploughsoil.

Earlier Romano-British features

6.34.6 Whilst most of the remains in Area 55 appear to belong to a relatively narrow period of time between the mid-2nd and 3rd century AD, the following features, described below in north-to-south order, may be slightly earlier, containing as they did nothing later than pottery dating to between the 1st and 2nd centuries AD.

6.34.7 Dog-legged ditch 550523 lay in the centre of the site and had an overall length of 15.2 m, with a maximum width of 1.1 m and depth of 0.23 m. A small group of unabraded sherds from a grog- and shell-gritted jar of late 1st to 2nd-century date was recovered from the feature, along with some animal bone.

6.34.8 Approximately 15 m to the south, two linear features, (550538: >11.9 x 5.2 x 0.25 m) and 550524 (10.7 x 1.34 x 0.19 m) formed a right angle in plan, with a 3.2 m wide gap between them. The disuse of both features appears to date to the 2nd century AD. Ditch 550538 was found to contain structural briquetage.

6.34.9 Some 30 m further south again, ditch 550539 (>20.8 x 2.4 x 0.57 m) continued beyond both the eastern and western LOE; it contained pottery of mid-1st to mid-2nd-century date.

6.34.10 The southernmost features that, on ceramic grounds, appear to belong to the initial phase of activity in Area 55 were gully 550531 (>8.2 x 0.54 x 0.23 m) and pit 550380 (1.04 x 0.61 x 0.22 m). Pottery from these two features spanned the late 1st to mid-2nd century (pit 550380 also contained a bone tool, possibly for weaving). Gully 550531 had been cut to the

north by east-west ditch 550529, which contained 3rd-century sherds, a relationship in agreement with the stratigraphic sequence (Fig. 102.90). The south-eastward course of gully 550531 was continued, after a gap of 3.9 m, by ditch 550532 (17 x 1.2 x 0.3 m), which appeared later in date, containing 2nd–3rd-century pottery; this having cut ditch 550533 (13.9 x 0.96 x 0.24 m) which contained pottery of the same date, as well as briquetage.

6.34.11 Overall, the earlier Romano-British features at Area 55 were few in number and relatively slight in appearance. The 2nd–3rd century floruit of the site witnessed the expansion of enclosure efforts at the site, with the setting out of numerous, more substantial, boundaries.

Romano-British features: 2nd–3rd century

6.34.12 The northern part of Area 55 was dominated by a large pond, 550022 (10.98 x 6.51 x 1.2 m; Figs 102.91 and 197). This feature contained a basal fill of mid-orangey grey clay overlain by a fill of dark blackish grey clay, which produced the bulk of the pottery from the feature, some 7 kg in total (and around one fifth, by weight, of all pottery from Area 55). Much of the pottery assemblage appeared fresh, i.e., its final deposition occurred not long after it had been broken; the latest material was of mid-2nd to 3rd-century date. The ceramics also included pieces of briquetage container, and a single sherd of intrusive medieval pottery (mid-15th–mid-16th century). These finds-rich lower fills were overlain by loamier upper deposits that contained fewer Romano-British finds, and signs of more recent disturbance. These findings mirrored that of the evaluation, in which pond 550022 was numbered 48210 (and thought to be a ditch). Moreover, at the mitigation stage, asbestos was found in the upper parts of this feature, which prevented further excavation.

6.34.13 Two ditches (550334: >4 x 1.12 x 0.2 m; 550515: 6.38 x 1.29 x 0.17 m) and a gully (550035: 5.3 x 0.52 x 0.12 m) converged on the pond from the south. These features would have drained into the pond, as would a ditch joining pond on its northern side (550514: > 11.1 x 2.6 x 0.55 m). This contained pottery of the mid-2nd century or later, and had been cut at its northern end by one of a parallel pair of broadly east–west ditches (550512: >20 x 1.97 x 0.47 and 550511: >19 x 2.46 x 0.23 m). These also contained Romano-British pottery, although it was not more closely datable. This pair of ditches formed the northern limit of the remains in Area 55, and it is possible that they formed either a trackway (9 m wide) or a double-ditched boundary that delimited activity within the site, although there is insufficient resolution in the geophysical data to permit a better understanding of this proposed boundary line beyond the stripped area.

6.34.14 To the south of the pond, over a distance of some 125 m, five ditches with 2nd- or 2nd–3rd-century pottery were exposed crossing the site on various orientations, but very broadly pivoting around east–west.

Table 8 Approximately east–west ditches in the central part of Area 55

Gully	(L. x W. x D.) (m)	Fills (upper/lower)	Finds
550518	>25 x 2.75 x 0.45 x 0.62 m	Grey sand/dark grey sand/pale grey sand	Pottery with an emphasis on C2 AD, copper alloy brooch (C2 AD), Romano-British glass, animal bone, bone point, quern fragments,
550522	>19.1 x 2.42 x 0.35; Fig. 102.92	Dark brown loam/grey sand/pale grey sand	Mid–late C2 AD pottery and animal bone
550525	>19.5 x 2.38 x 0.97	Grey sand/dark brownish grey clay/pale grey clay	Mid–late C2 AD pottery and animal bone

550527	>16 x 1.8 x 0.9	Grey clay/dark grey clay/pale blue clay	Later C2–3 AD pottery, animal bone, quern fragment and fired clay,
550529	18.7 x 2.5 0.85	Very dark brown sandy silt/grey sandy clay/pale grey clay	Later C2–3 AD pottery, animal bone, worked bone handle, copper alloy brooch (C1 AD?) and fired clay

6.34.15 These ditches may have defined the northern and southern boundaries of small plots of land (such as paddocks), or possibly defined larger, but non-contemporary fields, with the short distance between some of the ditches (such as 550525 and 550527) indicating shifting boundaries as the field system developed over time. It is possible that ditches 550518 and 550522 formed one of these smaller plots (of 22 m by at least 21 m) with north–south ditch 550521 (18 x 1.88 x 0.6 m) forming its eastern side, although the pottery in ditch 550521 was a little later (mid-2nd to 3rd-century date) than that from 550518 and 550522, indicating it may be a later sub-division. The northern part of ditch 550521 had been overwritten by another ditch, 550520 (>8.9 x 1.8 x 0.48 m), which cut 550518 and turned to continue beyond the eastern LOE. Ditch 550520 contained pottery of the mid-2nd to early 3rd century, as well as animal bone, a triangular perforated fired clay object and a possible quern fragment.

6.34.16 Further north–south aligned subdivision was recorded to the south. Ditch 550508 (>11.05 x 1 x 0.28 m; Fig. 198) had probably been cut by east–west ditch 550527, although a land drain had largely obscured the relationship between the two, and they may have been contemporary. Certainly, both ditches contained pottery of 2nd to 3rd-century date, as well as some residual handmade (i.e., possibly Iron Age) sherds. The base of ditch 550508 was riddled with rootholes/potential stakeholes (collectively 550528), although their lack of finds and the absence of any sense of order in their distribution (i.e., they did not form an alignment that might signal a palisade or fenceline) suggests they were natural in origin. The absence of any other similar clusters from Area 55, should be borne in mind, however. Samples from ditch 550508 were exceptionally rich in well-preserved wood charcoal, some of which derives from an imported (non-native) conifer species.

6.34.17 Further south, it is possible that ditch 550529 served to define the northern boundary of a more gridded scheme of land demarcation seen in the southern part of the site: southwards from ditch 550529, over a distance of some 130 m, a group of narrower boundaries appeared to define plots of land conforming to a co-axial, north-west to south-east/ north-east to south-west grid. Within this grid were some of the 1st to 2nd-century features described above, although most components of this arrangement contained pottery of the same 2nd–3rd-century date as the site's main focus of activity.

6.34.18 Not all of these features were contemporary, suggesting here also the field system developed during the relatively short period of time that the site was in use. Ditch 550537 (>19 x 2.36 x 0.51 m) had been cut by ditch 550536 (31.5 x 1.99 x 0.7), which followed a perpendicular alignment (Fig. 102.93). The eastward continuation of 550536 (550535: 8.9 x 2.2. x 0.67 m) was recorded as a separate feature but the relationship between the two was not resolved, and one might presume that they were contemporary in design so as to form the corner of a plot of land. At its eastern limit, ditch 550535 appeared to have been cut by ditch 550534 (>18.7 x 1.68 x 0.52 m; Fig. 196), but this was not confirmed by excavation. Ditch 550537, the stratigraphically earliest of these four features contained slag and fired clay (briquetage container), but no easily datable evidence. The remainder contained pottery of late 2nd to 3rd-century date. Ditch 550535 contained a *sestertius* of uncertain date, but broadly of the 1st to 3rd century AD, and therefore potentially contemporary with the pottery. The partial remains of calves were found in two of the ditches (550534 and 550536) in this area. These remains are complemented by the near-complete

skeleton of a new-born foal recovered from Romano-British (3rd century) ditch 48206, which was investigated 180 m to the north during the evaluation phase (Wessex Archaeology 2021c).

6.34.19 The arrangement of features at the southern limit of Area 55 echoed that at the northern, with a pair of parallel, broadly east–west ditches set some 9 m apart (550540: >20.88 x 1.4 x 0.42 m; Fig. 102.94; 550541: >27.60 x 2 x 0.37 m), perhaps a trackway, defining the southern limit to the area of concentrated archaeological activity. This sense of these features being peripheral to the main activity on the site is reflected in their artefactual assemblage: a single sherd of Romano-British grey ware from its presumed continuation in evaluation trench 484 was the only dating evidence from ditch 550540, and ditch 550541 was artefactually sterile. The terminal of a north–south ditch (550542: 1.44 x 0.50 m) appeared to respect ditch 550541 and the two were probably contemporary. Ditch 550542 continued to the south for 27 m, and perhaps a further 65 m, if north–south ditch 48506 recorded during the evaluation in trench 485 (not illustrated) represents part of the same boundary.

Post-medieval/modern

6.34.20 Ditch 550050/550097 (>26 x 2.6 x 0.64 m) towards the north end of Area 55 appears to correlate with a curving field boundary shown on 19th-century mapping. It contained post-medieval/modern material, including pottery (mid-17th to 18th century), relatively modern glass bottles and clay tobacco pipe.

6.34.21 Shallow ditch 550054/550218 (>8.25 x 0.84 x 0.04 m) cut ditch 550518 close to the eastern LOE; its position and course matches the same 19th-century boundary represented by ditch 550050/550097. Given its shallow depth and blackish dark grey sandy clay fill, the feature may represent the base of a hedgerow forming part of the mapped boundary.

Undated

6.34.22 There were relatively few features that did not contain dating evidence. To judge by their appearance, some of those that were found may well have related to the Romano-British activity, although this cannot currently be confirmed. Examples include ditches 550236/550275 (>9.7 x 1.4 x 0.45 m) and 550033/550339 (11.42 x 0.95 x 0.12 m), both found towards the southern end of the site.

6.35 Area 56

Introduction

6.35.1 Area 56 occupied 0.32 ha and was centred on NGR 520871, 343357. The stripped ground surface descended slightly from 2.3 m OD at the northern LOE to 2 m OD at the southern LOE. The field in which Area 56 lay was low-lying flat active agricultural land south of the A17 where it runs between East Heckington and Swineshead Bridge.

6.35.2 The geophysical survey recorded several strong anomalies crossing the area (Magnitude Surveys 2020, fig. 63–65). Evaluation (WA trenches 490, 491 and 493) revealed two ditches in trench 490 and a ditch and a palaeochannel in trench 493; all were undated (Wessex Archaeology 2021c).

6.35.3 Area 56 was stripped of overburden in August 2021. The works exposed a palaeochannel, a pair of ditches (one with disarticulated human bone), two gullies, pits and a calf burial (Fig. 69).

Soil deposit sequence

6.35.4 The geological substrate is recorded as Mudstone of the Kellaways and Oxford clay formation, overlain by superficial clay, sand and silt alluvium (BGS 2022). This was recorded on site as a fairly loose mid-brownish grey sandy silt and lay directly beneath a 0.40 m thick dark brown silty clay ploughsoil.

Romano-British

6.35.5 A pair of parallel, north-west to south-east aligned ditches lay in the southern part of the site. The northernmost, 560024/560034 (2.22 x 0.82 m; Fig. 103.95) contained a single disarticulated human bone in its basal fill (slot 560024). The bone is an almost complete left humerus in good condition, with clear evidence for deliberate human manipulation, including dismemberment and defleshing (Fig. 199). The bone has been radiocarbon dated to the late Romano-British period (cal. AD 250–410; 1734±31; SUERC-108720).

Undated

6.35.6 A shallow band of laminated sandy silts (5.2 x 0.4 m) crossing the site on a north-west to south-east alignment was found to be natural and not formally recorded; it equates to natural feature 49304 from the evaluation. Its alignment matched that of the pits described below, as well as, more broadly, the parallel pair of ditches previously described. One possibility is that these had all been set out in relation to the natural drainage feature.

6.35.7 The well-preserved remains of a calf were found in cut 560058 (1.30 x 0.72 x 0.30 m; Fig. 200), which lay close to the southern LOE. The level of bone preservation might suggest a post-medieval or modern date, although bone from the radiocarbon dated Romano-British individual was also in good condition, signalling the need for caution. The size of the animal is not diagnostic of any particular period. It may be that the calf burial reflects practices associated with the treatment and deposition of the humerus; it may or may not be coincidental that the calf's left foreleg was detached.

6.35.8 Three pits, all with a similar pale yellowish grey clayish silt fill and also located at the southern LOE, were investigated and proved to be artefactually sterile (560038: >0.52 x 0.64 x 0.15 m; 560042: diam. 0.53 x 0.09 m; 560040 1.74 x 0.90 x 0.20 m). Feature 560038 continued beyond the LOE and therefore could be a ditch terminal. The three features appeared to follow a north-west to south-east alignment, upon which the calf burial also lay.

6.35.9 The second of the pair of parallel ditches (560044/560051: 7.1 x 0.65 m) is undated. It lay 8.3 m to the south-west of the boundary with human bone, and contained water-lain fills with complex laminations. This had a peaty uppermost fill, probably caused by material from above slumping into the feature as its fills deflated following drainage of the wider landscape in the post-medieval period (Fig. 201). Animal bone was recovered from the blueish grey clay fill in the upper part of ditch 560051.

6.35.10 Two WNW–ESE aligned gullies (560017/560019 0.53 x 0.15 m, 560012/560009 0.51 x 0.17 m; Fig. 103.96) lay some 50 m apart in the northern part of site. Although they were similar in terms of orientation and dimensions, their fills and profiles differed, suggesting they were not contemporary.

6.36 Area 57

Introduction

6.36.1 Area 57 occupied 0.16 ha, centred on NGR 518698, 34011, on flat low-lying agricultural land west of South Forty Foot Drain. The stripped ground surface lay at 1.7–1.9 m OD, and was highest in the west.

6.36.2 The geophysical survey revealed possible linear ditches (Magnitude Surveys 2020, fig. 84–86). Trench evaluation (WA trench 519) uncovered a ditch and two gullies, all undated; some corresponded with the geophysical data (Wessex Archaeology 2021c).

6.36.3 Area 57 was stripped of overburden in September 2021, exposing six ditches and gullies (Fig. 70), some of which corresponded with the results of the geophysical survey. All datable material from the site was post-medieval to modern, with dates spanning the late 17th to 20th century. Three narrow curving gullies were recorded. These were undated but may pre-date the modern features.

Soil deposit sequence

6.36.4 The geological sequence is recorded as Mudstone of the Kellaways and Oxford clay formation overlain by clay, silt and sand alluvium (BGS 2022).

6.36.5 The site 'natural' was typically encountered at around 0.35–0.40 m below the existing ground surface and comprised a yellowish brown, orange and grey sand with some clay patches.

6.36.6 A dark brown ploughsoil sealed the site.

Post-medieval/modern

6.36.7 North-west to south-east running ditch 570041 (2.54 x 0.78 m; Fig. 104.97) located in the centre of area contained a post-medieval (late 17th to 18th century) glazed pottery sherd. The ditch does not appear on historic OS maps but has the same orientation as the existing field system, further suggesting it was a relatively recent feature. Ditch 570041 ran parallel to artefactually sterile ditch 570003/570009 (max. 1.6 x 0.39 m; Fig. 202), which lay 3 m to the north-east, and together they may have defined a double-ditched field boundary or trackway of relatively recent date.

6.36.8 Post-medieval–modern pottery (late 17th to mid-19th century) was retrieved from ditch 570006/570012 (>24 x 1.73 x 0.56 m), which crossed the north-western corner of the site.

Undated

6.36.9 Three features were investigated but remain undated.

6.36.10 Two of these, ditches 570042 (1.50 x 0.08 m) and 570015/570017 (1.4 x 0.36 m), may have defined the eastern entrance (14.7 m wide) to a circular enclosure some 100 m in diameter, although this is speculative and the proposed enclosure cannot be discerned in the geophysical data from outside the stripped area. Both features had a dark blackish brown upper fill, suggesting they became infilled at the same time or by the same process. Ditch 570042 had been cut by modern ditch 570041 (Fig. 104.98); its relationship with 570003/570009 was unresolved due to disturbance from evaluation trench 519. Ditch 570042 contained a piece of modern pottery (19th–20th century), although this thought to be intrusive because of the shallowness of the feature and the find's provenance from a slot dug where the ditch had been disturbed by evaluation trench 519.

6.36.11 Within the enclosed area lay a short length of slightly curving gully (570019/570031: 0.44 x 0.14 m), which continued beyond the south-western LOE.

6.37 Area 58

Introduction

6.37.1 Area 58 occupied 0.12 ha centred on NGR 518578, 339988. The stripped ground surface sloped down from 1.80 m at the north-western LOE to 1.50 m in the south and east LOE. The field in which Area 58 lay in was low-lying, flat, active agricultural land located between roddons, west of South Forty Foot Drain.

6.37.2 The geophysical survey revealed two ditches (Magnitude Surveys 2020, fig. 87–89) Evaluation trenching uncovered a gully and a ditch, both undated, corresponding to the geophysical survey (WA trench 521; Wessex Archaeology 2021c).

6.37.3 Area 58 was stripped of overburden in October 2021. The works exposed two ditches with modern finds, one of which matches a boundary shown on historic OS mapping (Fig. 70).

Soil deposit sequence

6.37.4 The geological substrate is recorded as Mudstone of the Kellaways and Oxford clay formation, overlain by superficial deposits of alluvial clay, silt and sand (BGS 2022). This later material formed the site 'natural', which was described as a yellowish brown sand with clayey patches. It lay directly beneath a 0.35 m mid-greyish brown clayey silt ploughsoil.

Post-medieval/modern

6.37.5 Ditch 580006 (3 x 0.95 m) crossed the stripped area on a north-west to south-west alignment. Post-medieval glass was recovered from its lower fill. Ditch 580006 had been cut at 90 degrees by ditch 580003 (4 x 0.78 m; Figs 105.99 and 203). This later ditch matches a boundary shown on mapping from the turn of the 19th/20th century, but which is absent from the 1970s' map. An iron nail was recovered from the lower fill of ditch 580003.

6.38 Area 59

Introduction

6.38.1 Area 59 occupied 0.21 ha, centred on NGR 518360 339448. The ground level sloped down from 1.7 m in the north to 1.1 m OD in the south. A slight downward slope from east to west was also perceptible. The field in which Area 59 lay was low-lying, flat, agricultural land located on a roddon, west of South Forty Foot Drain.

6.38.2 The geophysical survey of the area later occupied by the site revealed one right-angled and one linear boundary, both of possible archaeological origin (Magnitude Surveys 2020, 12 and fig. 90–92). The survey noted that the potential archaeological remains were similar in signal strength to surrounding natural anomalies, suggesting that the archaeological features had become infilled through flooding events. An enhanced possibility for the presence of archaeological features not detected by the survey was noted.

6.38.3 Evaluation trenching conducted in 2021 revealed three ditches of unknown date within the area later encompassed by the excavation area (WA trenches 525–526), while in its immediate vicinity the evaluation revealed a further five ditches (WA trenches 524–527; Wessex Archaeology 2021c).

6.38.4 Area 59 was stripped of overburden in August 2021. The works exposed four ditches, a gully and a roundhouse with associated stakeholes in its centre (Fig. 71). No datable material was recovered, and so the chronology of the site is currently unconfirmed.

Soil deposit sequence

6.38.5 The bedrock is Mudstone of the Kellaways and Oxford clay formation. Superficial deposits of clay, silt and sand alluvium (BGS 2022) overlie the bedrock.

6.38.6 The geological substrate was typically encountered at around 0.35 m below the existing ground surface and comprised a compact light yellow clayey sand in the central and eastern part of the area, and mid-grey sandy clay in the western part.

6.38.7 A mid-grey orange sandy clay subsoil was intermittently present, around 0.10 m thick. A dark greyish brown sandy clay ploughsoil covered the whole area.

Undated

6.38.8 Two parallel ditches (590098 and 590038; 1.32–1.65 x 0.38–0.57 m deep and 2.87 x 0.73 m deep; Fig. 106.100) on a north-west–south-east alignment were present at the north and south ends of the area. Both ditches extended beyond the limits of excavation, with ditch 590038 probably appearing in trench 527 to the west of the area as ditch 52715. The ditches contained one to two fills of silty or sandy clay. As the ditches were parallel it is possible that they were part of the same enclosure or field system, though, as there were no artefacts to confirm whether they were contemporary, this is a suggestion only.

6.38.9 Between the two parallel ditches were a further two ditches, also of undetermined date. It is unclear whether there was an association between any of these features. The northernmost of the two was an 'L'-shaped ditch (590050/590056; Fig. 204), which extended across the full width of Area 59 and into trench 525 to the north-west, possibly as ditch 52511 or ditch 52508. The ditch measured 1.36–1.46 wide x 0.32–0.45 m deep and contained one to two fills of sandy clay from which two fragments of animal bone were recovered.

6.38.10 Ditch 590032/590058 was on an east–west alignment, extended beyond the limits of the excavation, and appeared in trench 526 as ditch 52610. The ditch measured 1.52–1.95 wide x 0.29–0.52 m deep and contained two fills of silty clay (Fig. 106.101).

6.38.11 Gully 590015 cut across ditch 590038 on a NNE–SSW alignment. It measured 0.5 x 0.1 m deep and contained two fills of sterile silty clay.

6.38.12 Roundhouse 590097 had an internal space of 4.68 x 4.29 m and was defined by a ring gully and 14 internal stakeholes/postholes (Fig. 205). The roundhouse was possibly extended to the west at some point during its use, as a second gully was cut forming a sub-oval shape and increasing the internal space to 5.61 x 4.29 m. The total external measurements of the structure were 7.27 x 5.52 m. The ring gully itself was 0.33–0.9 wide x 0.11–0.27 m deep (Fig. 106.102); interventions dug across it typically recorded two fills of clay sand. Frequent charcoal inclusions, charred plant remains, a fragment of animal bone and fired clay in the fills provide possible evidence of occupation. The stakeholes measured approximately 0.1 m in diameter and 0.05 m deep and contained fills of sandy clay. They formed no discernible pattern, but they were probably relate to use of the roundhouse or an internal structure. A single stakehole (590068) of similar appearance to the internal features was recorded external to the ring gully.

6.39 Areas 60 and 61

Introduction

6.39.1 As Areas 60 and 61 lay just 20 m apart, and at least one feature appears to have continued between one area and the other, they are considered together below.

6.39.2 The investigated area occupied 0.71 ha (Area 60: 0.41 ha; Area 61: 0.30 ha) and was centred on NGR 518288, 337368. The ground surface descended from 3 m OD at the north-east LOE of Area 61 to 2.5 m OD along the southern edge of Area 60. Areas 60 and 61 lay on a low-lying flat roddon and were in use for agriculture at the time of the excavation.

6.39.3 Neither Area 60 or 61 had been subject to geophysical survey, but evaluation trenching had revealed geological channels, ditches, a posthole and five stakeholes (Wessex Archaeology 2021c).

6.39.4 Areas 60 and 61 were stripped of overburden in August 2021. The works exposed a concentration of ditches and gullies (Figs 72 and 206). These were occasionally cut through, or cut by, other similar features, and many followed a broadly north–south alignment that reflected the local drainage fall. One of the features matches a boundary visible on historic mapping. The site ceramic assemblage ranges in date between the Romano-British and modern periods, with some early medieval pottery suggesting occupation in the local area in the 8th century AD. Due to the low quantities involved, however, the finds are of limited use in providing convincing dating evidence for many of the features, apart from those of modern date.

Soil deposit sequence

6.39.5 The geological substrate is recorded as Mudstone of the Oxford clay formation, with clay and silt Tidal Flat Deposits forming the superficial geology (BGS 2022).

6.39.6 These superficial deposits were typically encountered at around 0.40–0.60 m below the existing ground surface and comprised a yellowish or greyish brown silty sand.

6.39.7 A dark brown subsoil was intermittently present, around 0.20 m thick. A dark brown sandy silt ploughsoil sealed the site.

Romano-British

6.39.8 A small amount (just over 10 sherds) of Romano-British pottery was recovered from the site, although much of this came from features also containing later material, or from features that had been recorded cutting features containing later material.

6.39.9 A single sherd of 2nd-century samian ware was recovered from trench 545 (pit 54509: 0.56 m diameter x 0.14 m deep) during the evaluation. No other Romano-British features were found nearby when the area (here Area 61) was stripped of overburden during the main programme of excavation.

6.39.10 Approximately 42 m to the east of pit 54509, at the eastern limit of Area 61, an arrangement of ditches (610136–610138 etc) appeared to mark the north-western corner of a plot of land (see below). Romano-British pottery was recovered from some of these. Although at least some of this is thought likely to be residual, the presence of the material does signify local activity at that time.

6.39.11 Although the evidence is a little equivocal, the northern part of Area 61 seems to contain the best evidence for *in situ* Romano-British remains for the site as a whole.

Early medieval

6.39.12 The plot boundary (ditches 610136–610138 etc) had been recut on at least two occasions (Figs 107.105 and 207), but it was not possible to establish the sequence, i.e., whether it had expanded or contracted over time. Fills of all components of this arrangement were similar grey/brown silt/sands that were difficult to distinguish.

6.39.13 The boundary marking the western side of this plot of land was reasonably sizeable (e.g., 610106: 2.00 m wide by 0.6 m deep), those marking the northern sides were slighter (1.8-0.65 m wide and as little as 0.35 m deep). Slot 610114, dug through ditch 610106, contained animal bone and a single sherd of abraded Romano-British grey ware. The boundary marking the plot's northern limit, ditch 610138, contained shell-gritted pot sherds of 8th to mid-9th-century date. Two features were visible 'inside' the plot of land: a north-west to south-east aligned gully (610116/610101: >5.5 x 0.76 x 0.48 m) and a pit (610093: 0.68 x 0.44 x 0.09 m). The gully contained a handful of small abraded sherds of Romano-British pottery along with shell and animal bone, and had been cut by 610136, one of the plot boundaries (Fig. 208). Given the abraded state of the Romano-British sherds and the presence of the Anglo-Saxon pottery, this group of features is best viewed as being of early medieval date overall.

6.39.14 The site produced a few other confirmed or probable early medieval sherds, although, as with the Romano-British evidence, many of these were probably residual. Five or six features may, however, be more convincingly attributed to the early medieval period: 600245, 600246, 600249, 600251, 610061, 610133.

6.39.15 Ditch 600245 (13.2 x 0.84 x 0.3 m) contained oxidised sheds from a spouted pitcher of probable 8th-century date, with no other dated material recovered (other finds comprised animal bone). Ditch 600245 was stratigraphically and functionally isolated in the centre of Area 60. Its north-east to south-west alignment was askew to other features nearby.

6.39.16 Right-angled gully, or an arrangement of gullies, 600246 (>20.5 x 0.48 x 0.17 m; Fig. 209) continued beyond the southern LOE in the central/eastern part of the site. Its artefactual assemblage comprised a single shell-gritted sherd of 8th-century date.

6.39.17 A little over 30 m to the east lay east–west ditch 600251 (>14 x 0.85 x 0.12 m), which, apart from a single post-Roman shell-gritted sherd, contained no finds. Ditch 600251 had been recut by another east–west ditch, 600249 (>30 x 0.81 x 0.19 m), which continued its course to the west. Ditch 600249 contained no finds apart from animal bone and had been cut by more recent features at its western extent.

6.39.18 It is conceivable that during the early medieval period features 600246, 600251 and 600249 formed two sides of a rectangular plot of land measuring at least 45 x 21 m (east–west by north–south).

6.39.19 Another right-angled gully lay in Area 61 (610133: >37.2 x 0.47 x 0.21 m). A single sherd from an 8th–mid-9th century jar or bowl was recovered from the feature.

6.39.20 The final feature that may have been of early medieval date was gully 610061 (>40 x 0.70 x 0.25 m; Fig. 210). This crossed Area 61 on a north-west to south-east alignment. It was artefactually sterile apart from a single abraded shell-gritted sherd, possibly of post-Roman date.

Post-medieval/modern

6.39.21 North-east to south-west ditch 600098/600184 (5 x 1.48 m) matches a boundary shown on historic OS mapping. A land drain had been laid along its base and plastic finds were encountered in its upper reaches. A spur ditch (600243) extending from its eastern side is not shown on the mapping but contained 18th–19th-century pottery, modern CBM and clay tobacco pipe.

6.39.22 Modern spur ditch 600243 had been cut by north–south ditch 600244 (27.7 x 1.3 x 0.22 m), at the southern end of which lay three later, and substantial, ditches. The earliest of these was the north-east to south-west aligned 600247 (typically 2.40 m wide by 0.80 m deep; Fig. 107.103). Ditch 600247 had been cut by both of the other two features forming this trio: 600248 (2.38 x 0.66 m) and 600250 (3.00 x 1.47 m; Fig. 107.104); these had a similar NNE/SSW alignment. The probable northwards continuation of ditch 600250 was exposed in Area 61 and evaluation trench 545.

6.39.23 The stratigraphic sequence, hinging on the relationship between modern spur ditch 600243 and the northern limit of 600244, would indicate that all these features are modern, although obviously modern material was absent from three of them. Ditch 600244 contained a small group of probable early medieval pottery, including a sherd from a perforated shell-gritted jar or bowl, along with animal bone. Ditch 600247 contained a small abraded sherd of samian, a single reduced ware sherd of potential mid-8th to mid-9th-century date, along with animal bone. The finds assemblage from ditch 600248 comprised a small group of Romano-British pottery including grey ware, as well as a further two reduced ware sherds from the same vessel as seen in ditch 600247, along with animal bone. Finally with regard to this particular sequence of features, ditch 600250 was more convincingly post-medieval/modern, containing as it did, a sherd of modern pottery, glass with handwriting (']B = 1749'), a metal button, as well as further animal bone.

6.39.24 Although the relationship between modern spur ditch 6002343 and the northern limit of 600244 is reasonably clear (Fig. 210) the chronology of the overall sequence of events is open to question, as to judge by the finds evidence alone, 600244, 600247 and 600248 were not modern.

Undated

6.39.25 Three relatively narrow linear features following a similar roughly north-west to south-east alignment were present. Most interventions recorded a single secondary fill; all were undated.

Table 9 Summary of Area 60/61 undated gullies (average dimensions)

Gully	(L. x W. x D.) (m)	Fills	Finds
600238	>20 x 0.64 x 0.17	Yellowish grey or brown loamy sand	Animal bone
600239	>13.6 x 0.58 x 0.30	Brownish grey clayish silt	Animal bone
610135	>19.1 x 1.17 x 0.19	Greyish brown sandy clay	None

6.39.26 These features did not appear to have been set out on a regular arrangement, but were similar in form and alignment to two of the features for which an early medieval date has been suggested (600246 and 610061), and it is possible that all formed boundaries within a contemporary scheme of enclosure. However this cannot be proven from the current evidence.

6.39.27 Excavations commencing around 30 m east of Area 61 for the Viking Link convertor station (Headland Archaeology forthcoming) exposed a 9-ha area containing a palimpsest of features characterised by a rectilinear field system, rectangular enclosures and ring ditches. It appears that some of the remains recorded within Areas 60 and 61 represent the western periphery of this focus of settlement and enclosure activity.

7 FINDS EVIDENCE

7.1 Introduction

7.1.1 In total, 333.5 kg of finds were recovered from the interventions in Zones 2 and 3, with marginally greater quantities from Zone 3 (52% of the total by count, 56% by weight; compared with 48% by count and 44% by weight from Zone 2). Most finds were recovered by hand during the normal course of excavation, but the assemblage also includes artefacts extracted from the residues of samples taken for the recovery of environmental remains. Relatively few were recovered from the majority of excavation areas, with Areas 5, 11, 19, 20, 25, 26, 33, 35, 36, 37 and 39 in Zone 2, and Areas 54, 57, 58, 59 and 61 in Zone 3 each producing less than 1 kg. Totals of more than 10 kg came from just seven excavation areas (Areas 8, 18, 29 and 38 in Zone 2, and Areas 52, 53 and 55 in Zone 3), and significant quantities (more than 50 kg) were only recovered from Areas 53 and 55.

7.1.2 Where appropriate, the finds have been cleaned and all have been quantified by material type within each context. All data relating to the finds has been recorded in a digital database linked to the stratigraphic record; this will form part of the permanent project archive.

7.1.3 A wide variety of material types are represented (Table 10), especially from Zone 2 where the range is enhanced by a multiplicity of 'exotic' materials occurring among the grave goods from the later 6th to later 7th or early 8th century cemetery in Area 9 (in the Civil Parish of Dalby). The finds from the cemetery are considered together in section 7.6 below, but the remainder of the assemblage is presented by material type. The assemblage as a whole spans a wide date range, extending from the later Mesolithic (c. 6000–4000 BC) to the late 19th or early 20th century AD, although the majority of finds are of Romano-British date (1st to 4th centuries AD). The condition of the finds is highly variable and will be considered for each material type in the discussions below.

7.1.4 Where artefactual assemblages from the various excavation areas are described below, these are generally presented in north–south order along the scheme, rather than in numeric order by Area number.

Table 10 Finds quantification (number of pieces/weight in grammes) by material type and Zone

	Zone 2		Zone 3		Total	
Material type	**Number**	**Weight (g)**	**Number**	**Weight (g)**	**Number**	**Weight (g)**
Amber	1	4	-	-	1	4
Animal bone	5691	51,683	3644	44,104	9335	95,787
Burnt flint	360	840	-	-	360	840
Ceramic building material	76	13,345	36	2626	112	15,971
Clay pipe	6	13	5	14	11	27
Fired clay	223	4256	5768	64,865	5991	69,121
Worked flint	482	-	-	-	482	-
Glass	14	80	83	2714	97	2794
Human bone:						
articulated	23	-	-	-	23	-
disarticulated	6	40	9	134	15	174

cremated	-	60	-	446	-	506
Metalwork:						
gold	2	2	-	-	2	2
silver	3	2	-	-	3	2
copper alloy	110	209	4	23	114	232
iron	271	4260	32	4171	303	8431
lead	16	180	2	80	18	260
other metal	-	-	1	3	1	3
Pottery:						
prehistoric & Roman	3400	54,726	2596	57,966	5996	112,692
post-Roman	425	6080	87	1130	512	7210
Other ceramic	8	99	-	-	8	99
Shell	18	253	5	14	23	267
Slag	88	1140	10	130	98	1270
Stone	51	10,834	12	6767	63	17,601
Synthetics	2	2	-	-	2	2
Worked bone	13	148	4	95	17	243
Total	*11,289*	*148,256*	*12,298*	*185,282*	*23,587*	*333,538*

7.2 Flint

7.2.1 The worked flint provides evidence of the earliest activity along the scheme. An assemblage totalling 482 pieces was recovered, with 189 pieces found during the evaluation phase and a further 293 pieces collected from 19 of the excavation areas. The material ranges in date from the (late?) Mesolithic to the Bronze Age. The majority derives from the excavation of archaeological features of various dates, but 34 pieces were recovered from a layer (390003) described as colluvium in Area 39. The assemblage was examined and recorded into Wessex Archaeology's standard flint database. Brief comments have been made regarding the nature of the raw materials, the condition of the worked pieces and the presence of any diagnostic examples. The composition of the assemblage has been summarised by object type and excavation area (Table 11), with a similar summary by evaluation trench appearing in Appendix 2, Table 44.

Table 11 Object type by excavation area

Object Type	**Excavation Area**																					***Total***
	US	**5**	**7**	**8**	**9**	**17**	**18**	**37**	**19**	**21**	**38**	**22**	**12**	**39**	**28**	**34**	**29**	**40**	**30**	**41**	**31**	
Core fragment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	*2*
Flake core	-	-	-	1	-	-	1	1	-	-	1	1	1	-	-	1	-	-	-	-	4	*11*
Blade core	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	1	-	*4*
Primary flake	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	*2*
Secondary flake	1	1	-	5	-	-	4	1	-	-	3	2	2	5	-	-	-	1	-	2	5	*32*
Tertiary flake	2	1	3	12	1	-	1	-	-	-	1	3	5	3	-	3	-	2	-	-	3	*40*
Broken flake	1	-	8	14	1	1	3	4	-	2	1	1	5	5	1	4	-	-	1	2	4	*58*
Blade	1	-	-	6	-	-	1	3	-	-	1	-	1	5	-	-	-	1	-	2	3	*24*
Broken blade	-	-	-	3	1	-	-	1	-	-	-	1	1	8	-	-	-	1	-	-	1	*17*
Bladelet	-	-	-	9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*10*

Broken bladelet	1	-	-	4	1	1	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	*10*
Debitage/shatter	2	-	-	3	-	-	1	-	1	-	-		2	-	1	-	-	3	-	1	2	*16*
Microdebitage	-	-	4	9	7	1	-	-	-	-	1	1	-	3	-	4	1	1	1	1	-	*34*
Microburin	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	*2*
Core rej. tablet	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	-	-	-	-	-	-	*3*
Flanc de nucleus	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2	*3*
Crested piece	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	*1*
Microdenticulate	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*2*
Scraper	-	-	-	3	1	-	-	2	-	-	-	2	1	-	-	-	-	-	-	-	-	*9*
Knife	-	-	-	1	-	1	-	-	-	-	-	1	1	-	-	1	-	-	-	-	-	*5*
Piercer	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*1*
Projectile	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	*1*
'Other tool'	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*1*
Misc. retouch	-	-	-	1	-	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	*4*
Total	8	2	15	76	12	5	13	12	1	2	9	16	20	37	2	15	1	9	3	9	25	*292*

7.2.2 Although from disparate areas, the flint is of consistent raw material and condition. Flint is available from the chalk of the Lincolnshire Wolds and in the form of nodules forming a component of Devensian till deposits. The thin, worn and often slightly battered cortex, along with the highly varied colour of the flint, suggests that flint derived from fluvial or marine sources has generally been favoured. Some pieces have a stained cortex suggestive of an origin in deposits of clay-with-flints, outcrops of which are known on the western edge of the Wolds. Many examples are of a good quality flint, although numerous pieces also show evidence of thermally induced fracturing, both features which are consistent with this origin.

7.2.3 The worked material is in a generally abraded and sometimes rather battered condition, with a high level of glossing also common. This is the result of the material having been exposed and disturbed, in some cases as a result of incorporation into a ploughsoil, but frequently due to erosional processes redepositing them into features of later date. Patination is rare, but where it occurs, is essentially white and often only appears as a light 'frosting'. Only occasionally is the flint both worked and burnt.

7.2.4 The largest single group of material was collected from Area 8 which produced 76 pieces, 66% of which was recovered from environmental samples. These were found distributed throughout numerous features, many undated or of a demonstrably post-prehistoric date. However, several of these features are relatively rich in flint finds and are very likely to be dated by them.

7.2.5 Four small pits in a cluster of five which form pit group 800480 in Area 8 contained modest amounts of flint, found in charcoal-rich fills devoid of other materials. Two of these pits, 800332 and 800476, include neat, well-prepared blades/lets typical of Early Neolithic assemblages. The other associated material is essentially undiagnostic debitage, but would not obviously contradict this date. A knife in 800476 is of a form common throughout much of prehistory, but again sits well enough with such a date. Similarly, the material found in the other pits of this group are undiagnostic pieces but probably date from the same period. Such pit clusters are a well-documented feature of the Neolithic, and it is not uncommon for them to contain only lithics. In the absence of radiocarbon dates, it remains a possibility that the flint is residual in later features, but this seems unlikely.

7.2.6 Another, similar pit (800371) located in the north-west of Area 8 contained the largest group of flint (24 pieces). These include 11 well-made blades/lets and two microdenticulates (finely serrated pieces), one on a flake and one on a blade, and both retaining a distinct gloss on their cutting edges. These are all typical of Late Mesolithic/Early Neolithic industries, although microdenticulate pieces are particularly common in the latter, and an Early Neolithic date seems very likely for this feature. Other features in this part of Area 8, including curvilinear pit 800308 and posthole 800085, contained solitary examples of comparable blade/lets, and an unfinished Laurel Leaf or leaf-shaped arrowhead found in Romano-British gully 800494 provides further evidence for activity during the Early Neolithic period.

7.2.7 While the blade-based industry discussed above is considered to be of Early Neolithic date, Area 8 also produced clear evidence of Mesolithic activity in the form of a single microburin found in pit 800478, a component of pit group 800480. It is possible that some of the blades/lets also date from this period and represent residual pieces in features of Neolithic or later date.

7.2.8 Various pits and ditches in Area 12 produced 20 pieces and, while generally in the form of undiagnostic flakes, they include a fragment of a broken knife (residual in post-medieval/modern gully 120089) with neat, parallel invasive retouch that is most commonly associated with Late Neolithic/Early Bronze Age flaked/ plano-convex knives. The lack of blades and the dominance of flakes in this group might imply a similar date for much of the material in this area.

7.2.9 A moderately large group of material (37 pieces) was collected from Area 39, all of which derives from a deposit at the base of a slope described as a transitional zone between a remnant colluvium or subsoil and the natural geology (390003). This group includes 12 blades/lets, many of which are narrow (<15 mm), parallel sided examples with regular laminar dorsal scars and evidence of careful platform preparation. A further blade has been unilaterally crested on its distal half. Three blade cores from this deposit, two of which have opposed platforms, are similarly neat and have been carefully prepared. This skillful core maintenance is further mirrored by the presence of a core rejuvenation flake. While no strictly chronologically diagnostic pieces are included, these technological features are again typical of Mesolithic or Early Neolithic industries, but such narrow, regular blades and the use of opposed platform cores are characteristics perhaps more suggestive of Mesolithic assemblages. It is reasonable to assume that this group represents a discrete, contemporary assemblage, but a conflation of Mesolithic and Neolithic pieces cannot be discounted. Although slightly abraded, the material is in good condition, and this wear presumably reflects erosion from an area of activity probably only a small distance upslope.

7.2.10 Although the basal slope deposit was not encountered within them, several of the immediately adjacent evaluation trenches produced comparable material. A total of 12 blades/broken blades and a rejuvenation tablet from a blade core were recovered from the topsoil and subsoil in trench 124, and an opposed platform blade core and two broken blades were found in the same deposits of trench 122. In trench 149, undated ditch 14905 contained a neat blade and another rejuvenation flake from a blade core, undated ditch 14908 produced an opposed platform bladelet core, and pit 14903 contained yet another opposed platform blade core. Two more such cores and a microdenticulate piece (on a blade from an opposed platform core) were recovered from the topsoil from this trench. The topsoil and subsoil of trench 280 produced a very neat, conical bladelet core and two blades.

7.2.11 It seems possible that this material derives from the same center of activity as that in Area 39, but in any case, it provides further compelling evidence of a Mesolithic/Early Neolithic

presence. It is notable that Area 39 stands out as one of the richest for flint finds, and these four proximate trenches (122, 124, 149 and 280) contain by far the largest collections from the evaluation. Together they have produced a significant assemblage, possibly including both Early Neolithic and Mesolithic material. No microliths or microburins were found, and microdenticulates are particularly common in Early Neolithic assemblages, but overall, the group is arguably more typical of Mesolithic technology, particularly considering the frequency of opposed platform cores.

7.2.12 Area 31 produced 25 pieces, 11 of which were recovered from a possibly colluvial deposit (310004) analogous to that referred to in Area 39, and include five blades/lets and two Flanc De Nucleus, both from blade cores. Four more blades came from features excavated in this area. No chronologically diagnostic examples were found but the technology is suggestive of the same Mesolithic to Early Neolithic date range.

7.2.13 The remaining component of the assemblage consists of largely undiagnostic pieces dispersed thinly across numerous features within Zone 2, but a small number of examples are informative. A probable microlith formed from a narrow (6 mm) bladelet from ditch 180625, backed with steep bipolar retouch (indicative of anvil use), and a microburin from ring gully 220117, are clearly residual pieces of a Mesolithic date. A discoidal knife roughout from the topsoil of Area 17 is typical of Late Neolithic technology, and a fragment of a knife on a thick broken blade from Iron Age ditch 220114 is also very likely to be of this date. Lastly, a small Sutton B type barbed and tanged arrowhead (ON 220001) from ring gully 220117 is a clear indication of Early Bronze Age activity.

7.2.14 Rare examples of similar blades/lets to those discussed above were found in several other areas (see Appendix 2, Table 44) and support the presence of wider activity in the Mesolithic/Early Neolithic period, but all derived from features of much later date. Several of the flake cores collected, particularly those from Areas 22 and 31, are rather crude examples with numerous mis-hits and a rather opportunistic approach to reduction. These are more typical of later Bronze Age technology, but it should be stressed that these might simply reflect the difficulty in knapping small cobbles, many of which are no larger than 50 mm diameter. The remaining evaluation assemblage is spread thinly across the trenches and is largely comprised of undiagnostic debitage. The only exception to this is pit 9403 in trench 94, in which was found the butt end of a polished axe of Early Neolithic date, providing very clear evidence of activity during this period. This object was found in isolation and quite possibly dates this feature.

7.2.15 It is of some note that the entire flint assemblage derives from Zone 2 alone. This presumably reflects the fact that this is centred on the Wolds, while Zone 3 broadly encompasses fenland. It seems likely that earlier prehistoric occupation horizons in this area are now more deeply buried (Wessex Archaeology 2022a), but it might also be the case that this part of the landscape was too wet during much of prehistory. Activity is clearly focused on the Late Mesolithic/Early Neolithic period, particularly in Areas 8 and 39. Later Neolithic and Bronze Age activity is also in evidence, although this is more sparsely represented.

7.2.16 There is minimal evidence of *in situ* flint working from any of the areas discussed above, although local knapping is implied in those areas with the densest distributions, and it is likely that this is simply centered beyond the limits of investigation. Cortical pieces representing the early stages of core reduction are virtually absent. It appears clear that this, at least, took place elsewhere, most probably at the source of the raw material. Microdebitage and shattered fragments are present, particularly in the case of Area 8, but also occur in very small numbers, even when the contents of environmental sample

residues are included. This too implies local flint working, but with a focus some distance away from the excavated areas.

7.3 Burnt flint

7.3.1 A total of 840 g of burnt flint was recovered, again from Zone 2 alone, with almost half of this derived from the environmental samples. This was distributed at a very low density across both the evaluation trenches and mitigation areas, and only three contexts produced more than 25 g. Two of these, from ditch 4132 in trench 41 and pit 800382 in Area 8, also contained various other materials and are likely to represent general waste disposal, possibly dating to the Romano-British period. Tree-throw hole 10903 (trench 109) contained the largest group at 348 g. No other materials were found in association, but waste disposal again seems to provide the best explanation, in this case using an already extant natural hollow. This was the only feature revealed in trench 109.

7.3.2 Burnt flint is an intrinsically undatable material but is commonly taken as evidence of prehistoric activity, although it is likely that at least some relates to later occupation. There is, however, no other evidence from Zone 2 to highlight any concerted activity involving burning.

7.4 The Prehistoric and Roman Pottery

Introduction

7.4.1 The pottery is of regional significance as it contains groups from a long transect across the southern end of the Lincolnshire Wolds and the Lower Witham Valley. The assemblage provides a good representation of the Iron Age and Roman pottery in use on 'basic rural' sites in the region. The association of a number of the groups with salt production is also of interest. The assemblage has the potential to inform a range of the themes highlighted in the East Midlands Research Agenda (Knight et al. 2012).

7.4.2 A number of the assemblages from Zone 2 have low sherd weights and have been subjected to abrasion or chemical attrition due to soil conditions. In contrast, many of the Zone 3 groups are in fresher condition, containing larger fragments which are better preserved, in part due to many vessels being deposited in deep, often waterlogged ditches, but also due to soil conditions. Some aspects of the size and condition of the sherds from these sites may also be due to waste disposal strategies. The assemblage, alongside that from Zone 1 of the Viking Link scheme, may help investigate differences in the curation and disposal of pottery.

7.4.3 As the project has investigated a transect across south-eastern Lincolnshire, it is possible to look at differences between the distribution of fabrics. It is noticeable, for example, that the Zone 2 sites on the southern Wolds and the gravel deposits to the south have a higher proportion of quartz-sand gritted Iron Age wares than those encountered by the author elsewhere in Lincolnshire, and this probably reflects the exploitation of the local clays. Equally, there are a broader range of transitional grog-gritted wares and grey wares with light-fired cores from the Zone 3 sites, reflecting greater access to pottery produced in the Lower Nene Valley, the Welland Valley near Stamford, and perhaps also from Northamptonshire in the Upper Nene Valley. With closer study, regional differences in pottery supply may be discernible across the scheme. A larger than expected quantity of imported Late Iron Age Gallo-Belgic wares (whiteware and Terra Rubra) was recorded. This is of interest as these wares are seldom found outside the main Late Iron Age settlement foci such as Sleaford and Dragonby. The excavations from this scheme show that more examples of imported table wares found their way to humble rural sites in southern Lincolnshire in the 1st century AD than would typically be expected.

7.4.4 One feature noted amongst this assemblage are 'halo' patterns of carbonised deposits on a number of large sherds, suggesting they had been used as makeshift lids. Vessels repaired with metal cleats occur in Areas 30 and 55, with a further vessel from Area 55 repaired with pitch resin. Cooking residues occur on a range of vessels and there is the potential to investigate patterns of vessel use, the re-use of sherds for lids, and the organic materials used for vessel repair.

7.4.5 Smaller quantities of earlier prehistoric pottery include sherds from a probable barrow ring ditch in Area 9. Regrettably, much of the earlier prehistoric pottery is in poor condition and there are few diagnostic featured sherds.

Methodology

7.4.6 The archive complies with the requirements of the Study Group for Roman Pottery (Barclay et al. 2016; Darling 2004) using the codes and system developed by the City of Lincoln Archaeological Unit (Darling and Precious 2014) and cross-referenced with the fabric series developed for northern Lincolnshire (Rowlandson and Fiske 2019a; 2020a; 2021a), eastern Lincolnshire (Rowlandson 2019) and, where applicable, the Horncastle area (see Cleary et al. 2020). The alphanumeric fabric and form codes used are expanded in the quantification tables and in the archive. Iron Age vessel attributes follow those established by Knight for the East Midlands (1998). Fabrics of earlier prehistoric or broadly prehistoric date have been characterised using the main inclusion types (Knight 1998). In some cases, ambiguous handmade sherds have been attributed basic, inclusion-based codes when they might conceivably have been put in the specific Iron Age fabric groups had featured sherds been present. Rim equivalents (RE) and a maximum vessel count were undertaken (Pollard 1990). The pottery has been bagged by fabric within each context to conform to the requirements of the Lincolnshire Handbook (Jennings 2019). Significant vessels, suitable for illustration and further study at the reporting stage, have been extracted and given a 'D' number on their bag and in the archive. This report describes the range of material recovered and places the assemblage in its local and regional context.

7.4.7 Table 12 summarises the quantities of pottery recovered from each excavation area and provides an indication of their date range. Many of the individual site assemblages are small, but larger and more significant groups were recovered from Areas 8, 30, 38 and 40 in Zone 2 and Areas 52, 53 and 55 in Zone 3. The assemblages from each area are summarised below, with those of more than 100 sherds described in detail, with supporting quantification tables.

Table 12 Quantities (number of pieces, weight and rim equivalent) of pottery from each Area with an indication of date range

Area	Sherds	Weight (g)	Total RE	Earlier prehistoric	LBA?/EIA	Mid-Late Iron Age	Late Iron Age	Early Roman	Mid Roman	Late Roman	Very late Roman	Further work recommended
Zone 2												
Area 5	9	62	0.11					✓				
Area 7	106	1,094	0.25	✓		✓						✓
Area 35*	31	126	0.02			✓						×
Area 8	924	16,452	11.32	✓			✓	✓	✓	✓	✓	✓

Area 9	74	568	0.06	✓				✓				×
Area 17	39	853	1.22						✓			×
Area 33*	19	125	0.34						✓			×
Area 18*	38	396	0.04	?					✓	✓		×
Area 37	5	116	0.24					✓	✓			×
Area 20*	2	44	0.08					✓				×
Area 21*	43	775	0.47							✓	✓	✓
Area 38*	347	8,893	6.59						?	✓	✓	✓
Area 22*	101	697	0.54	✓			✓					✓
Area 12	107	886	0.48	?		?	✓		✓			×
Area 26	27	282	0.44					?	?			×
Area 39	4	18	0	✓								×
Areas 28 & 34*	150	1,072	0.35	?			✓					×
Area 29*	14	128	0.15				✓	✓				×
Area 40*	534	7,507	5.15	?	✓	✓	✓	✓				✓
Area 30*	627	12,398	9.99				✓	✓	✓	✓		✓
Area 41*	26	450	0	?	?							×
Area 31*	106	861	0.28	✓	?	✓						×
sub-total:	*3,333*	*53,803*	*38.12*									
Zone 3												
Area 52*	215	5668	4.06				?	✓	✓			✓
Area 53	264	4,824	2.84						✓			✓
Area 54*	3	58	0.12					✓				×
Area 55*	2,098	47,416	46.85					✓	✓			✓
Areas 60 & 61*	16	333	0.12					✓	✓			×
sub-total:	*2,596*	*57,966*	*53.99*									
Evaluation trenches*												
Eval sect. 16	1	13	0.02					✓				×
Eval sect. 20	5	52	0	✓					✓			×
Eval sect. 21	1	97	0						✓			×
Eval sect. 24	13	58	0	✓	?			✓				×
Eval sect. 25	1	1	0	?	?							×
Eval sect. 26	7	91	0.22						✓			×
Eval sect. 27	25	292	0.3		?				✓			×
Eval sect. 28	14	319	0.1		✓	?			✓			×
sub-total:	*67*	*923*	*0.64*									
Overall total	***5,996***	***112,692***	***92.75***									

KEY: * Includes sherd totals from evaluation trenches; ** Where not in excavation areas

Results: Zone 2

7.4.8 In total, 2918 sherds (48.862 kg, 34.76 RE, av. 16.7 g/sherd) were recovered from the mitigation Areas in Zone 2.

Area 5

7.4.9 Nine sherds (62 g, 0.11 RE, av. 6.6 g/sherd) were recovered from ditch, gully and trackway features. The pottery suggests limited activity in the early Roman period with a small number

of grey ware and native tradition ware sherds. A sherd from a Dressel 20 amphora is unusual for a basic rural site of this date.

Area 7

7.4.10 One hundred and six sherds (1.094 kg, 0.25 RE, av. 10.3 g/sherd; Table 13) came from a series of ditches and pits. Most of the pottery consists of featureless body sherds. Many of the small fragments were attributed a broad prehistoric date, but a small number of flint and clay pellet/grog gritted sherds from ditch 700302 may suggest some earlier prehistoric activity on the site.

7.4.11 The majority of feature sherds are from vessels in the coarse fossil shell-gritted IASH1 fabric, with three vessels showing signs of scored surface treatment (ditch 70024, pit 700171 and roundhouse 700299). Scored ware has traditionally been attributed a Middle to Late Iron Age date (Knight 2002), with scientifically dated examples from Lincolnshire typically producing dates in the Middle Iron Age (Knight 2010; Rowlandson 2017; Daniel 2016). One jar from enclosure ditch 700300 has a bead rim and thick-walled globular body, a further jar from ditch 700203 has a flattened direct rim, a jar from pit 700171 has a tapered direct rim and an ovoid body. This small range of featured sherds makes dating tentative although a Middle Iron Age date is preferred for a number of the contexts, particularly in the absence of any of the distinctive Late La Tène II/III fine wares that are typical on Late Iron Age sites in this region (Cleary et al. 2020; Chowne 1986), with only a couple of small sherds of the finer IASH2 fabric group. Whilst fossil shell-gritted wares are well represented, coarse sand gritted handmade wares are almost as numerous. This probably reflects the location of the site near Spilsby where coarse quartz for temper would have been available, presumably within drift deposits. Several of the sand-gritted wares contain the distinctive glassy quartz with ‘low sphericity’ that occurs naturally in the local Greensand rocks.

Table 13 Area 7 summary

Area 7 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	46	43.40%	532	48.63%	0
IALIM	Calcareous	Iron Age Limestone tempered	2	1.89%	9	0.82%	0
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	43	40.57%	468	42.78%	25
IASH2	Calcareous	Iron Age Shell Gritted: Site Fabric 2	2	1.89%	20	1.83%	0
CP	Prehistoric	Clay pellets	9	8.49%	36	3.29%	0
FL	Prehistoric	Flint	1	0.94%	12	1.10%	0
QU	Prehistoric	Quartz gritted	2	1.89%	16	1.46%	0
IV	Voids	Indeterminate voids	1	0.94%	1	0.09%	0
Area 7 Form Summary							
Form	**Form Type**	**Form Description**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
J	Jar	Unclassified form	5	4.72%	154	14.08%	14
JB	Jar/Bowl	Unclassified form	5	4.72%	36	3.29%	11
-	Unknown	Form uncertain	96	90.57%	904	82.63%	0

Area 35

7.4.12 Twenty-two sherds (88 g, 0 RE, av. 4 g/sherd) were recovered from Area 35, with a further nine sherds (38 g, 0.02 RE) from evaluation trench 61. These small sherds in sand (QU and IASAI) and fossil shell gritted (SH) fabrics were retrieved from postholes. The only diagnostic piece derives from a jar with a flattened rim and finger-tipped decoration in the IASA1 fabric group. This vessel is of Iron Age date; and it appears likely that the rest of the assemblage is of a similar date.

Area 8

7.4.13 Nine hundred and twenty-four sherds (16.452 kg, 11.32 RE, av. 17.8 g/sherd; Table 14) were recovered. The pottery consists of a broadly typical range of later Iron Age to Roman wares expected from a site in this part of Lincolnshire. The range of pottery present spans the 1st century AD until the very end of the Roman period, with a few groups containing examples of types diagnostic of the final phase of Roman pottery production. As might be expected, there is a small but limited range of fine wares including samian, colour-coated wares and fine grey ware. A few sherds from amphorae and mortaria are also present but the majority of the Roman pottery consists of grey wares, transitional gritted wares and later Roman shell-gritted wares.

7.4.14 A small number of prehistoric pottery sherds were recorded (pit/posthole groups 800065 800233, 800098 and 800099), some with thin walls likely to be of Bronze Age date, but there are few diagnostic sherds and no decorated material, so the dating of these vessels is somewhat tentative.

7.4.15 Ditch 800486 contained 21 sherds ranging in date from late 2nd to 3rd century AD. The group includes a fine grey ware beaker with a bead rim, a grey ware lipped bowl and a rusticated jar. Sherds from a native tradition grey ware jar are also present. A single small sherd of Dales ware would suggest the group was deposited in the 3rd century AD.

7.4.16 Ditch 800488 yielded 81 Iron Age and early Roman sherds. The Iron Age sherds include quartz-sand and limestone gritted pieces, notably from a necked jar or bowl with a footring base, cordoned decoration and an external carbonised residue (D030). Transitional wares include a grog-gritted jar with a lid-seated rim (J105) and native tradition ware jars (CPN141). Grey wares include a carinated jar or bowl in the DSSA fabric (as Rigby and Stead 1976, fig. 75.32) and a jar with an everted rim. The group probably dates to the late 1st to early 2nd century AD.

7.4.17 Ditch 800489 includes 41 sherds of Late Iron Age and early Roman pottery. The Iron Age vessels include two necked vessels with corded decoration in the IASA2 fabric group (D29 and D30) and a large bowl with a wedge-shaped rim in a sandstone-gritted fabric (IASST). Small quantities of grey ware include a basal fragment in the DSSA fabric group and two necked jars in GREY fabric. A small number of sherds in the transitional IAGR1, IAGR2 and IAGR4 fabric groups include a lid-seated jar (J105). The pottery present dated from the 1st to early 2nd century AD.

7.4.18 Ditch 800491 includes 327 sherds from a maximum of 294 vessels (5.128 kg, 3.43 RE). Iron Age pottery is restricted to a single sherd in the IASA1 fabric but a range of transitional IAGR1, IAGR2 and IAGR4 vessels are present including a large bowl with a wedge-shaped rim (BNAT), a necked jar (JNK) and a large, flanged bowl (BFB412). Mortaria include a burnt sherd of uncertain origin and a Mancetter-Hartshill mortarium with internal use wear (MOMH2). Two large fragments of Dressel 20 type amphorae are also present. Samian sherds include fragments from a Drag. 33 cup and a decorated Drag. 37 bowl. Fine grey ware sherds include a bowl and a poppy-headed beaker (GFIN and PART). A colour-coated

beaker with barbotine decoration (CC3) and a colour-coated bowl (CC1) are the only other specialist tablewares present. Four sherds of Black Burnished ware 1 include examples with burnished acute lattice decoration. Many of the greywares could date to the later 1st to 2nd century AD, including a segmental flanged bowl (BSEG), a lid-seated jar (J105) and a rusticated jar in the DSSA fabric group. Other grey wares present include a lug-handled jar, necked jars and lids in the GREY fabric group. The majority of the pottery present could be dated to the later 1st to 2nd centuries AD, but some later material is present. Shell-gritted wares include Dales ware jars likely to date to the 3rd century AD or later. Grey ware plain rimmed dishes (DPR), a Dales-type jar (JDW2) and a Dales type jar in a coarse grey ware (GREYC, JDW2) would also suggest a date in the later 3rd to 4th century AD. It is possible that this ditch remained open through much of the Roman period or was backfilled in the later Roman period with earth also containing earlier pottery.

7.4.19 Ditch 800493 consists of a sherd from a grey ware folded jar or beaker, a B334 carinated vessel, a Black Burnished ware 1 sherd from a bowl or dish (BB1), and native tradition ware jars in the IAGR2 shell-gritted fabric group. A grey ware carinated bowl may suggest a date in the later 3rd to 4th century AD (as Darling and Precious 2014, no. 1160).

7.4.20 Gully 800494 contained 11 sherds including onesherd from a white ware flagon, native tradition ware jars in the IAGR1 and IAGR2 groups, grey ware and a sherd from a necked jar or bowl in an oxidised fabric. The pottery from this group suggests the feature was backfilled in the later 1st to mid-2nd century AD.

7.4.21 Boundary ditch 800496 includes a mixed group with a grey ware plain rimmed dish and a wide-mouthed bowl likely to date to the 3rd to 4th century AD. Native tradition shell-gritted wares and a few handmade Iron Age sherds are also present.

7.4.22 Pit 800498 contained 61 sherds mostly of late Roman date. Notable inclusions are a lug-handled jar (as Darling and Precious 2014, no. 1055 with burnished scroll decoration), a jar with a collared rim, a large coarse quartz-gritted lid-seated jar (JDW2), a sherd from a colour-coated beaker, a Swanpool type mortarium (MOSPT), a sherd from a oxidised white-slipped vessel and a shell-gritted Dales ware jar. A few handmade prehistoric sherds are also present.

7.4.23 A further 237 sherds were recovered from ungrouped postholes, pits, ditches, a gully and a kiln or oven. Most of the pits date to the Roman period, but a single pit (800371) was attributed a prehistoric date on the basis of a fragment from a handmade jar with an in-turned rim. The pottery from crop-dryer or oven 800465 suggests a date in the 2nd century AD. Although there are two warped sherds from grey ware wide-mouthed bowls, it would appear that the feature was not used for pottery production. Fresher groups of pottery were retrieved from pit 800382; these include a good example of a Bourne type bowl with a grooved rim (BBN3, D022). Pit 800380 contained fresh fragments from a grey ware rusticated jar, a B334 carinated vessel and a sherd from a large jar showing a ring of carbonised deposits suggesting re-use as a lid. Good late or ‘final’ Roman groups were retrieved from pits 800407 and 800415; these include an example of a shell-gritted bowl with an in-turned bead and flanged rim, and late Roman wheel-made jars likely to date to the later 4th century AD, suggesting that activity continued until the last phase of Roman pottery production in the late 4th century AD or later.

Table 14 Area 8 summary

Area 8 Fabric Summary

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
SAM	Samian	Undifferentiated	6	0.65%	35	0.21%	12
SAMEG	Samian	East Gaulish	1	0.11%	7	0.04%	11
DR20	Amphora	Dr 20 amphorae	2	0.22%	420	2.55%	0
MOMH2	Mortaria	Mancetter-Hartshill mortaria: Meta sediment trits; Leicester fabric MO4	1	0.11%	74	0.45%	0
MOMH3	Mortaria	Mancetter-Hartshill mortaria: Meta sediment trits; Sandy white fabric Leicester MO19	8	0.87%	253	1.54%	32
MORT	Mortaria	Mortaria; undifferentiated	1	0.11%	5	0.03%	0
MOSPT	Mortaria	Swanpool type	2	0.22%	10	0.06%	0
GFIN	Fine	Miscellaneous fine grey wares	10	1.08%	140	0.85%	15
PART	Fine	Parisian type wares	2	0.22%	19	0.12%	0
CC1	Fine	Colour coated fabric 1	3	0.32%	12	0.07%	0
CC3	Fine	Colour-coated with a pale orange fabric	1	0.11%	3	0.02%	0
CR	Oxidised	Roman cream wares (various)	1	0.11%	28	0.17%	0
OX	Oxidised	Misc. oxidized wares	2	0.22%	26	0.16%	5
OX?	Oxidised	Misc. oxidised wares	3	0.32%	22	0.13%	0
OXFIN	Oxidised	Fine Oxidised fabric	2	0.22%	9	0.05%	4
OXWS	Oxidised	Oxidized with white slip	1	0.11%	1	0.01%	2
BB1	Reduced	Black burnished 1, unspecified	5	0.54%	22	0.13%	0
BB2?	Reduced	Black burnished 2	3	0.32%	11	0.07%	0
DSSA	Reduced	Early- mid-Roman sandy ware	58	6.28%	599	3.64%	54
DSSA?	Reduced	Early- mid-Roman sandy ware	3	0.32%	65	0.40%	8
GREY	Reduced	Miscellaneous grey wares	428	46.32%	7729	46.98%	609
GREY?	Reduced	Miscellaneous grey wares	5	0.54%	43	0.26%	0
GREYC	Reduced	Coarse Grey ware	5	0.54%	196	1.19%	26
GREYS	Reduced	Misc grey ware fabrics with rare shell	1	0.11%	14	0.09%	0
GROG	Reduced	Grog-tempered wares	16	1.73%	655	3.98%	17
IAGR	Reduced	Native tradition/transitional gritty wares	2	0.22%	17	0.10%	6
IAGR?	Reduced	Native tradition/transitional gritty wares	1	0.11%	23	0.14%	13
IAGR1	Reduced	Iron Age tradition ‘Gritty’: Site fabric 1	61	6.60%	1373	8.35%	51
IAGR2	Reduced	Iron Age tradition ‘Gritty’: Site fabric 2	64	6.93%	1170	7.11%	33
IAGR4	Reduced	Iron Age tradition ‘Gritty’: Site fabric 4	28	3.03%	1241	7.54%	101
IASA?	Reduced	IA type sandy wares	1	0.11%	2	0.01%	0
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	15	1.62%	149	0.91%	0
IASA2	Reduced	Iron Age Sandy: Site Fabric 2	50	5.41%	733	4.46%	29
DWSHT	Calcareous	Dales ware type	20	2.16%	227	1.38%	14
IALIM	Calcareous	Iron Age Limestone tempered	2	0.22%	65	0.40%	0
LRLS	Calcareous	Lincolnshire Late Roman Shell-gritted wheel-made	13	1.41%	324	1.97%	38
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	16	1.73%	347	2.11%	28
SLSHB	Calcareous	Bourne shell gritted	3	0.32%	45	0.27%	6
CP	Prehistoric	Clay pellets	4	0.43%	10	0.06%	0
IASST	Rock tempered	Sandstone and grit tempered	2	0.22%	84	0.51%	8
QU	Prehistoric	Quartz gritted	13	1.41%	54	0.33%	2

CPIV	Prehistoric	Clay pellets with indeterminate voids	42	4.55%	139	0.84%	2
IV	Voids	Indeterminate voids	17	1.84%	51	0.31%	6

Area 8 Form Summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
A	Amphora	Unclassified form	2	0.22%	420	2.55%	0
BK	Beaker	Unclassified form	2	0.22%	4	0.02%	0
BKBAG	Beaker	Baggy	1	0.11%	4	0.02%	4
BKBR	Beaker	Bead rim	2	0.22%	13	0.08%	18
BKEV	Beaker	Everted rim	1	0.11%	4	0.02%	6
BKFO	Beaker	Folded; indeterminate type	1	0.11%	6	0.04%	0
BKPH	Beaker	Poppy head beaker	1	0.11%	20	0.12%	8
37	Bowl	Samian form- see Webster 1996	1	0.11%	5	0.03%	0
B	Bowl	Unclassified form	5	0.54%	103	0.63%	2
B31	Bowl	Imitation samian form 31	1	0.11%	18	0.11%	5
B318	Bowl	Flared rim as Petch 1962 fig. 7.23	5	0.54%	77	0.47%	17
B334	Bowl	Carinated jar/bowl (flat cordon as D&P 1157-9)	4	0.43%	146	0.89%	42
BBN3	Bowl	Bourne type with single grooved rim as Samuels 1983 fig. 214.61-3	1	0.11%	24	0.15%	6
BCAR	Bowl	Carinated	4	0.43%	99	0.60%	2
BFL	Bowl	Flange rimmed (e.g., Gillam 1970 Types 218-220)	8	0.87%	204	1.24%	46
BIBF	Bowl	Inturned bead and flange Swanpool D13-23	7	0.76%	210	1.28%	18
BSEG	Bowl	Segmental as Gillam 1970 Nos 294-5	2	0.22%	42	0.26%	7
BTR	Bowl	Triangular rimmed (e.g., Gillam 1970 Types 222-3)	1	0.11%	17	0.10%	7
BFB412	Bowl- large	Bead and flange- large as Darling 1999 fig 36.369	3	0.32%	221	1.34%	22
BNAT	Bowl- large	Native tradition bowl e.g., D&P No.700	14	1.52%	519	3.15%	47
BNNK	Bowl- large	Large bowl with no neck	2	0.22%	95	0.58%	14
BWM	Bowl- large	Wide-mouthed; D&P No 1225-30	8	0.87%	497	3.02%	24
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	2	0.22%	62	0.38%	8
BWM2	Bowl- large	Wide-mouthed; D&P No. 1228	1	0.11%	112	0.68%	19
BWM3	Bowl- large	Wide-mouthed; D&P No. 1229-30	2	0.22%	290	1.76%	20
BD	Bowl/dish	-	10	1.08%	145	0.88%	4
CLSD	Closed	Form	113	12.23%	2632	16.00%	0
33	Cup	Samian form- see Webster 1996	3	0.32%	15	0.09%	19
DGR	Dish	Grooved rim	1	0.11%	38	0.23%	10
DPR	Dish	Plain rim	3	0.32%	269	1.64%	63
F	Flagon	Unclassified form	2	0.22%	34	0.21%	0
FJ	Flagon/jar	Unclassified form	1	0.11%	14	0.09%	0
CPN	Jar	Native tradition	1	0.11%	28	0.17%	7
CPN140	Jar	Native tradition - Darling & Jones 1988 fig. 7.55	1	0.11%	32	0.19%	5
CPN141	Jar	Native tradition - Darling & Jones 1988 fig. 7.53	3	0.32%	222	1.35%	15
J	Jar	Unclassified form	18	1.95%	457	2.78%	34

J?	Jar	Unclassified form	1	0.11%	1	0.01%	2
J105	Jar	Lid seated; as Rigby and Stead 1976 Roxby form A	25	2.71%	461	2.80%	104
JBR	Jar	Bead rimmed	2	0.22%	25	0.15%	16
JCH	Jar	Channel rim- Iron Age type	5	0.54%	22	0.13%	17
JCR	Jar	Collared rim as Swanpool type C40-1	2	0.22%	96	0.58%	20
JDW1	Jar	Dales ware, as Gillam 1970 No. 157	6	0.65%	50	0.30%	26
JDW2	Jar	Dales ware, as Monaghan 1997 JD2 form	5	0.54%	276	1.68%	52
JEV	Jar	Everted rim	6	0.65%	70	0.43%	45
JIR	Jar	Inturned rim	1	0.11%	4	0.02%	2
JL	Jar	Large	23	2.49%	1706	10.37%	0
JLH	Jar	Lug-handled	29	3.14%	541	3.29%	64
JLS	Jar	Lid-seated	4	0.43%	64	0.39%	27
JNK	Jar	Necked	11	1.19%	98	0.60%	52
JNN	Jar	Narrow-necked	5	0.54%	54	0.33%	23
JRUST	Jar	Rusticated	3	0.32%	32	0.19%	0
JS	Jar	Storage	1	0.11%	198	1.20%	0
JBK	Jar/Beaker	Small jar or beaker	1	0.11%	6	0.04%	0
JBKFO	Jar/Beaker	Folded; indeterminate type	12	1.30%	71	0.43%	0
JBKNK	Jar/Beaker	Necked	1	0.11%	5	0.03%	8
JB	Jar/Bowl	Unclassified form	7	0.76%	197	1.20%	26
JBCAR	Jar/Bowl	Carinated	5	0.54%	55	0.33%	0
JBL	Jar/Bowl	Large	17	1.84%	832	5.06%	17
JBNK	Jar/Bowl	Necked	55	5.95%	907	5.51%	74
L	Lid	Unclassified form	3	0.32%	58	0.35%	18
M	Mortaria	Unclassified form	4	0.43%	89	0.54%	0
MHK	Mortaria	Hook-rimmed as Gillam 1970 Nos. 237-45	8	0.87%	253	1.54%	32
OPEN	Open	Form	5	0.54%	59	0.36%	0
-	Unknown	Form uncertain	440	47.62%	3124	18.99%	8

Area 9

7.4.24 Seventy-four prehistoric and Roman sherds (0.568 kg, 0.06 RE, av. 7.7 g/sherd) were recovered from Area 9. The pottery came from Anglo-Saxon cemetery features, a trackway (900050) and a prehistoric ring ditch. The pottery from ring ditch 900066 is the most significant group and contains a range of small handmade earlier prehistoric sherds. These include incised, thin-walled fragments likely to be from Late Neolithic/Early Bronze Age Beakers, which probably date the origin of this feature. The fabrics are typically poorly mixed, clay pellet/grog gritted wares (CP) or quartz-gritted types (QU). A fragment from a Roman grey ware base (2 sherds, 37 g) from this feature may be intrusive. At 3.46 g, the mean sherd weight of the 13 prehistoric sherds from this feature precludes a definite date based on the pottery alone, but the morphological identification of the feature as a Bronze Age barrow is supported by the small quantity of pottery recorded.

7.4.25 Trackway 900050 includes a small group of fine grey ware, grey ware and transitional grog-gritted wares (IAGR1 and IAGR4) that date to the later 1st to 2nd century AD.

7.4.26 The pottery from the graves is mixed and includes small fragments of flint-gritted (FL; 1 sherd, 1 g), clay-pellet/grog-gritted sherds (CP; 12 pieces, 37 g) and quartz-gritted (QU; 17 sherds, 85 g) handmade wares that may be from earlier prehistoric activity on the site. A

few small sherds of grey ware are also present, although there is little to suggest significant Roman settlement in the area or the curation of earlier sherds for deposition in Anglo-Saxon graves. A further three small Roman sherds retrieved from layer 900001 include a lug-handle from a grey ware jar and a single sherd from layer 900165. The Roman pottery is in poor condition, but broadly similar to that from other excavation areas nearby, and there is little of any significance, suggesting that Area 9 was marginal to any local Roman settlement.

Area 17

7.4.27 Thirty-nine sherds (0.853 kg, 1.22 RE, av. 21.9 g/sherd) were recovered from ditches, a pit and a gully. The material could all date to the 2nd to 3rd century AD. Although the site is probably located close to a settlement, little more can be said about this small and abraded group. Fresh fragments from a white ware flagon and a samian Drag. 33 cup (ditch 170156) are the only vessels of note.

Area 33

7.4.28 Nineteen sherds (0.125 kg, 0.34 RE) were recovered from evaluation trench 143. They are all from a single grey ware jar with abraded or excoriated surfaces.

Area 18

7.4.29 Thirty-four sherds (0.382 kg, 0.02 RE, av. 11.2 g/sherd) were recovered, with four more sherds (14 g, 0.02 RE) from evaluation trench 319. The pottery was retrieved from ditches and a pit and mostly consists of undiagnostic small handmade sherds. A single small handmade rim sherd was recovered from ditch 180619. The nine Roman sherds include a small sherd of samian, a colour-coated base from a jar or flagon, a grey ware handle and a jar with a wedge-shaped rim.

Area 37

7.4.30 Five sherds (0.116 kg, 0.24 RE, av. 23.2 g/sherd) were recovered from features in Area 37. Two Roman sherds in fabrics IAGR2 and GROG came from topsoil (370001), with three post-Roman sherds, probably of medieval date.

Area 20

7.4.31 A single rim sherd (34 g, 0.08 RE) from a lid-seated jar in a transitional Iron Age/Roman gritty fabric (IAGR1) was recovered. A further single sherd (10 g, 0 RE) of Roman grey ware came from evaluation trench 320.

Area 21

7.4.32 Thirty-one sherds (0.624 kg, 0.43 RE, av. 20.1 g/sherd) were recovered from Area 21. A further 12 sherds (0.151 kg, 0.04 RE) came from evaluation trench 230 (site code 218716). The pottery was retrieved from ditches and layers and mostly dates to the late Roman period, including some types typical of the final phase of Roman pottery production. A grey ware bowl with an in-turned bead and flanged rim and a calcareous-gritted Huntcliff type jar are the main vessels of significance, and it would appear that this trench investigated a small part of a much larger late Roman settlement. The Huntcliff jar is an unusual form for this part of Lincolnshire and may be a product of the Vale of Pickering (see discussion in Monaghan 1997) or a more locally produced ‘Huntcliff type’ vessel made in Lincolnshire and gritted with Jurassic calcareous material (e.g., Linwood Warren, Samuels 1983).

Area 38

7.4.33 Three hundred and thirty-three sherds (8.524 kg, 6.37 RE, av. 25.6 g/sherd) were recovered from Area 38, with a further fourteen sherds (0.369 kg, 0.22 RE) from evaluation trench 27

(Table 15). This group includes a good range of late Roman pottery including examples of the key 'Final' Roman indicators of activity at the end of the 4th century and the beginning of the 5th century AD. Much of the material survives in fresh condition.

7.4.34 A small proportion of the material may relate to settlement in the mid-Roman period, perhaps the pottery from ditches 380251 and 380261, gullies 380252, 380257 and 380262 and features 2707, 380124, 380175, 380179 and 380168. However, these features have been more broadly dated largely based on the absence of material that could be more closely dated than the later 2nd to 4th centuries AD. It is noticeable that no examples of the early Roman grey ware DSSA, native tradition wares (IAGR*) or diagnostic vessel forms were recorded from Area 38, suggesting that there was little or no pottery use on the site prior to the 3rd century AD. Only three heavily abraded samian sherds and a few fine grey ware sherds (PART and GFIN) appear likely to be of mid-Roman date, and it is possible that these could also be dated to the 3rd century or that they arrived on the site as heirlooms.

7.4.35 The range of pottery present is similar to that seen from other sites in the Lindsey area of Lincolnshire. The products of the Swanpool kilns and Linwood Warren kilns (Webster and Booth 1947; Samuels 1983; Wilson and Wilson 2007) include examples of Swanpool type mortaria, straight sided bead and flanged bowls in the Swanpool type colour-coated fabric, and a copy of a samian form 36 bowl in a Swanpool-type oxidised fabric. Grey wares include straight sided bead and flanged bowls (BIBF), developed wide-mouth bowls (BWM3), jars with collared rims (JCR) and a lug-handled jar (JLH, as Darling and Precious 2014, no. 1055). Two shell-gritted Dales ware jars occur, but most of the shell-gritted wares are wheel-made double lid-seated jars typical of the latest deposits from Lincoln (LRLS, JDLS, D013 and D017), along with a few other sherds including a necked jar with an undercut rim similar to late Roman shell-gritted ware types produced in the South Midlands. The coarse grey wares (GREYC) include a range of the forms typical at Swanpool in the Lincoln LCOA fabric and similar to those produced at Linwood Warren. The fabrics of these coarse quartz-gritted grey wares include the glassy quartz typically found in the Spilsby sandstone Greensand deposits and may have been produced at Linwood Warren or, more likely given the proximity to the southern edge of the Lincolnshire Wolds, by a more local kiln. The forms present include straight sided bead and flanged bowls (BFB, D018), bowls with in-turned bead and flanged rims (BIBF, D016) and a variety of lid-seated jars including JDLS (D014), JDW2 and JHUN Huntcliff type copies (D015). A few sherds from colour-coated beakers and a Black Burnished ware 1 type bowl are also present.

Table 15 Area 38 summary

Area 38 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
SAM	Samian	Undifferentiated	3	0.90%	24	0.28%	0
MOSP	Mortaria	Swanpool mortaria	1	0.30%	68	0.80%	6
MOSPT	Mortaria	Swanpool type	1	0.30%	45	0.53%	6
GFIN	Fine	Miscellaneous fine grey wares	2	0.60%	10	0.12%	0
PART	Fine	Parisian type wares	1	0.30%	14	0.16%	0
CC1	Fine	Colour coated fabric 1	4	1.20%	12	0.14%	0
SPCC	Fine	Swanpool colour-coated	2	0.60%	33	0.39%	11
SPOXT	Oxidised	Swanpool type oxidized wares	3	0.90%	169	1.98%	24
OX	Oxidised	Misc. oxidized wares	3	0.90%	52	0.61%	6

OX?	Oxidised	Misc. oxidised wares	3	0.90%	33	0.39%	12
OXC	Oxidised	Coarse oxidised	1	0.30%	36	0.42%	0
OXFIN	Oxidised	Fine Oxidised fabric	1	0.30%	11	0.13%	10
BBT	Reduced	Black Burnished type copies	2	0.60%	25	0.29%	0
GREY	Reduced	Miscellaneous grey wares	213	63.96%	5305	62.24%	336
GREY?	Reduced	Miscellaneous grey wares	1	0.30%	16	0.19%	6
GREYC	Reduced	Coarse Grey ware	39	11.71%	1119	13.13%	130
GROG	Reduced	Grog-tempered wares	1	0.30%	16	0.19%	0
DWSHT	Calcareous	Dales ware type	1	0.30%	13	0.15%	2
LRLS	Calcareous	Lincolnshire Late Roman Shell-gritted wheel-made	38	11.41%	1459	17.12%	84
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	11	3.30%	60	0.70%	4
FCLAY	Fired Clay	Fired Clay	1	0.30%	2	0.02%	0
IV	Voids	Indeterminate voids	1	0.30%	2	0.02%	0
Evaluation Trench 27 Fabric Summary							
OX	Oxidised	Misc. oxidized wares	3	21.43%	16	4.34%	0
GREY	Reduced	Miscellaneous grey wares	9	64.29%	333	90.24%	20
DWSHT	Calcareous	Dales ware type	1	7.14%	7	1.90%	2
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	1	7.14%	13	3.52%	0

Area 38 Form Summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
BK	Beaker	Unclassified form	6	1.80%	22	0.26%	0
BKEV	Beaker	Everted rim	2	0.60%	8	0.09%	20
B	Bowl	Unclassified form	2	0.60%	109	1.28%	16
B36	Bowl	Copy of Samian form 36	1	0.30%	142	1.67%	24
B38	Bowl	Imitation samian 38	1	0.30%	30	0.35%	0
BFB	Bowl	Bead and flange bowl	6	1.80%	289	3.39%	58
BFL	Bowl	Flange rimmed (eg Gillam 1970 Types 218-220)	3	0.90%	123	1.44%	25
BIBF	Bowl	Inturned bead and flange Swanpool D13-23	2	0.60%	63	0.74%	16
BNK	Bowl	Necked	1	0.30%	25	0.29%	12
BFLL	Bowl- large	Flange rimmed	1	0.30%	175	2.05%	15
BWM	Bowl- large	Wide-mouthed; D&P No 1225-30	2	0.60%	69	0.81%	6
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	1	0.30%	120	1.41%	8
BWM3	Bowl- large	Wide-mouthed; D&P No. 1229-30	4	1.20%	290	3.40%	34
BD	Bowl/dish	-	6	1.80%	176	2.06%	12
CLSD	Closed	Form	37	11.11%	775	9.09%	0
DPR	Dish	Plain rim	1	0.30%	8	0.09%	4
J	Jar	Unclassified form	11	3.30%	210	2.46%	27
J?	Jar	Unclassified form	2	0.60%	21	0.25%	8
J162	Jar	Narrow necked; as D&P 968	1	0.30%	29	0.34%	12

JCR	Jar	Collared rim as Swanpool type C40-1	2	0.60%	216	2.53%	35
JDLS	Jar	Double lid-seated	35	10.51%	1477	17.33%	95
JDW1	Jar	Dales ware, as Gillam 1970 No. 157	1	0.30%	13	0.15%	2
JDW2	Jar	Dales ware, as Monaghan 1997 JD2 form	1	0.30%	51	0.60%	17
JHUN	Jar	Huntcliff	4	1.20%	226	2.65%	48
JL	Jar	Large	8	2.40%	613	7.19%	0
JLH	Jar	Lug-handled	5	1.50%	26	0.31%	0
JLS	Jar	Lid-seated	1	0.30%	29	0.34%	13
JNK	Jar	Necked	3	0.90%	43	0.50%	38
JBKEV	Jar/Beaker	Everted rim	1	0.30%	5	0.06%	8
JBKNK	Jar/Beaker	Necked	1	0.30%	5	0.06%	6
JB	Jar/Bowl	Unclassified form	4	1.20%	67	0.79%	22
JBL	Jar/Bowl	Large	16	4.80%	1250	14.66%	12
JBNK	Jar/Bowl	Necked	4	1.20%	97	1.14%	32
ST	Misc	Strainer	2	0.60%	5	0.06%	0
MBF	Mortaria	Bead-and-flange rimmed	1	0.30%	45	0.53%	6
MHH	Mortaria	Hammerheads as Gillam 1970 Nos 279-84	1	0.30%	68	0.80%	6
-	Unknown	Form uncertain	153	45.95%	1604	18.82%	0

Area 22

7.4.36 Ninety-five sherds (0.653 kg, 0.52 RE, av. 6.9 g/sherd) were recovered from features in Area 22. A further six sherds (44 g, 0.02 RE) came from evaluation trenches 102 and 103. A range of 71 predominantly abraded sherds from 33 handmade vessels was recorded, with varying quantities of clay-pellets, flint, quartz, none-soluble rock, limestone and voids, and a mean sherd weight of 7.24 g (CP, CPIV, FL, RO, IV, LI and QU). These sherds have few distinctive features but include fragments from three jars with everted rims (CPIV and IV), but it is not certain that all of these sherds could be attributed a date in the 2nd millennium BC and some of the abraded material may be of later Bronze Age to Iron Age date. The presence of a few flint-gritted sherds from this part of Lincolnshire would, however, suggest that at least a proportion of this material is of earlier prehistoric date. The rest of the material, including large bowls with wedge-shaped rims (IASH1, BNAT) and fine shell-gritted necked jars with cordoned decoration (IASH5), in the IASA1, IASH1 and IASH5 fabrics suggest activity on the site in the Late Iron Age.

7.4.37 A Middle Iron Age date is most likely for a small group of handmade vesicular sherds including a jar with a flattened lip expanded externally and a nail stabbed rim top from ring gully 220117. Only one possible Roman grey ware sherd was noted. A crucible fragment was also found during the evaluation.

Area 12

7.4.38 One hundred and seven sherds (0.886 kg, 0.48 RE, av. 8.3 g/sherd, maximum 58 vessels; Table 16) were recovered from ditches. The pottery is mostly prehistoric with a few Roman sherds and a single modern piece from a land drain. The majority of the pottery probably dates to the later Iron Age. Seven handmade sherds in the IV and QU fabrics may be of earlier date but this remains uncertain; these include four small handmade prehistoric sherds from ditch 120087.

7.4.39 Ditch 120088 contained a good group of 81 Iron Age sherds in the coarser IASA1 sand-gritted fabric and shell-gritted IASH1 and IASH5 fabrics. The range of forms suggests a Late Iron Age date with a native tradition large bowl with a wedge-shaped rim, a jar with an everted rim and cordoned decoration, a bead rimmed jar and a necked jar or bowl.

Ditch 120063 included a sherd with decoration in a clay pellet/grog–gritted fabric which may represent either Bronze Age incised decoration or Iron Age square toothed arcs, but it has been burnt so the date of this vessel is uncertain.

Table 16 Area 12 summary

Area 12 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
GREY	Reduced	Miscellaneous grey wares	1	0.93%	15	1.69%	0
GREY?	Reduced	Miscellaneous grey wares	1	0.93%	2	0.23%	0
IASA	Reduced	IA type sandy wares	3	2.80%	12	1.35%	0
IASA?	Reduced	IA type sandy wares	4	3.74%	20	2.26%	0
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	35	32.71%	413	46.61%	19
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	37	34.58%	278	31.38%	8
IASH5	Calcareous	Iron Age Shell Gritted; Site Fabric 5	7	6.54%	42	4.74%	19
CP	Prehistoric	Clay pellets	2	1.87%	20	2.26%	0
ETW	Rock temper	Erratic pebbles broken up as temper	1	0.93%	9	1.02%	0
IAGROG	Grog	Iron Age Grog tempered wares	1	0.93%	3	0.34%	0
IAGROG1	Grog	Iron Age grog gritted wares- Site fabric 1	1	0.93%	7	0.79%	0
IAGROG2	Grog	Iron Age grog gritted wares- Site fabric 2	3	2.80%	4	0.45%	0
QU	Prehistoric	Quartz gritted	1	0.93%	3	0.34%	0
MOD	Post med+	Modern pottery, undifferentiated	2	1.87%	16	1.81%	0
FCLAY	Fired clay	Fired clay	2	1.87%	15	1.69%	0
IV	Voids	Indeterminate voids	6	5.61%	27	3.05%	2
Area 12 Form Summary							
Form	**Form Type**	**Form Description**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
BNAT	Bowl- large	Native tradition bowl eg. D&P No.700	1	0.93%	51	5.76%	4
CLSD	Closed	Form	4	3.74%	18	2.03%	0
J	Jar	Unclassified form	3	2.80%	20	2.26%	11
JBR	Jar	Bead rimmed	1	0.93%	15	1.69%	12
JEV	Jar	Everted rim	6	5.61%	30	3.39%	17
JBNK	Jar/Bowl	Necked	2	1.87%	32	3.61%	2
-	Unknown	Form uncertain	90	84.11%	720	81.26%	2

Area 26

7.4.40 Twenty-seven sherds (0.282 kg, 0.44 RE, av. 10.4 g/sherd) were recovered from features in Area 26. Gully 260003/260005 contained a small group of shell-gritted sherds and abraded grey ware sherds, including from a bowl with an in-turned bead and flanged rim

and a jar with an everted rim. The flanged bowl shows some signs of misfiring and may be a 2nd-century AD segmental flanged bowl variant rather than the later 4th century BIBF bowl type. Although Area 26 is probably in proximity to Roman settlement, little more can be said.

Area 39

7.4.41 Four sherds (18 g, 0 RE, av. 4.5 g/sherd) were recovered from layer 390003. These small sherds have clay pellet inclusions and voids (CPIV) and are probably of earlier prehistoric date.

Areas 28 and 34

7.4.42 Fifty-seven sherds (0.726 kg, 0.28 RE, av. 12.7 g/sherd) were recovered. A further 93 sherds (0.346 kg, 0.07 RE) came from evaluation trenches 41, 123 and 126. All of the groups are small but the majority of the diagnostic material dates to the later Iron Age.

7.4.43 A few handmade sherds may be of earlier prehistoric date including a vessel with faint stabbed decoration from ditch 4132 (trench 41). Many of the other groups contain featureless body sherds likely to be of Iron Age date, predominantly in the quartz sand-gritted IASA1 fabric group. An ellipsoidal vessel in the fine IASA2 fabric from short gully/elongated pit 280036 (D02) has square toothed and stamped roundel decoration. A small number of other diagnostic Late Iron Age vessels such as a bead rimmed jar from topsoil 12601 and a large storage jar with a channelled rim from spur ditch 340168 (Darling 2009, fig. 46.4) would also support this date. The presence of sherds from a Gallo-Belgic white ware butt beaker (Hawkes and Hull 1947, Cam 113) is an unusual addition to the assemblage. Late Iron Age imported fine wares are rare in Lincolnshire outside the main settlement foci such as Dragonby and Sleaford, although a handful of other examples have been recorded from similar sites in the county. No obviously Roman material was recorded.

Area 29

7.4.44 Six sherds (61 g, 0.02 RE, av. 10.2 g/sherd) were recovered from features in Area 29. A further eight sherds (67 g, 0.13 RE) came from evaluation trenches 132 and 300. This small assemblage includes Roman grey wares and Late Iron Age shell-gritted fabrics.

Area 40

7.4.45 Four hundred and fifty-three sherds (6.852 kg, 4.6 RE, av. 15.1 g/sherd) were recovered from features in Area 40. A further 81 sherds (0.655 kg, 0.55 RE) came from evaluation trench 46 (Table 17). The majority of diagnostic pottery dates to the later Iron Age to early Roman periods, although a few sherds may be of earlier date. They include sherds from a ‘barrel shaped jar’ with an in-turned rounded rim (Challis and Harding 1975) from ditch 400549. A shoulder sherd from a handmade quartz-gritted jar with a stab decoration and a partially oxidised external surface was recovered from ditch 400315. This vessel appears similar to examples of the shouldered post Deverel-Rimbury styles (Barrett 1980, fig. 6.1). Regrettably, the rim, which might help confirm this stylistic identification, is not present and some later Iron Age jars also have stabbed decoration. A range of small handmade sherds in the QU and IV fabric groups are of broadly prehistoric character, and many of these may be of Iron Age date.

7.4.46 The Iron Age pottery mostly appears to be of Late Iron Age date. Scored ware sherds were recorded from curvilinear feature 400550 (above the alluvium) and pit 400193. Scored surface treatment is typically seen amongst assemblages dating to the Middle Iron Age (Daniel 2016; Rowlandson 2017), although the continued use of this technique into the later Iron Age has been proposed for some parts of the East Midlands (Knight 2002; 2010). The

presence of sherds of Gallo-Belgic white ware and Terra Rubra is unexpected and indicates that the inhabitants had access to imported table wares. A range of Late La Tène II/III fine wares and coarse wares with wedge-shaped rims also suggest activity in the early to mid-1st century AD (Knight 2002).

7.4.47 There is a limited quantity of Roman pottery, including a rusticated jar, a jar with a bead rim and a B334 necked vessel in the early Roman DSSA fabric. Grey wares (GREY) also include a B334 vessel and a copy of a Gallo-Belgic platter (PGB, D024). Other wares include transitional ware, jars and large bowls, samian and an amphora sherd. Although there is only a small quantity of Roman pottery present, it suggests that the site may have been occupied into the later 1st century AD.

Table 17 Area 40 summary

Area 40 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
AMPH	Amphora	Miscellaneous amphorae	2	0.44%	81	1.18%	0
GBWW	Import	Gallo-Belgic white wares	1	0.22%	7	0.10%	7
GBWW?	Import	Gallo-Belgic white wares	3	0.66%	9	0.13%	0
GFIN	Fine	Miscellaneous fine grey wares	9	1.99%	40	0.58%	0
TR	Import	Terra Rubra	24	5.30%	46	0.67%	2
CC1	Fine	Colour coated fabric 1	1	0.22%	2	0.03%	0
CR	Oxidised	Roman cream wares (various)	9	1.99%	44	0.64%	0
OX?	Oxidised	Misc. oxidised wares	1	0.22%	1	0.01%	0
OXFIN	Oxidised	Fine Oxidised fabric	1	0.22%	6	0.09%	0
OXL?	Oxidised	Light oxidised fabrics	1	0.22%	3	0.04%	0
DSSA	Reduced	Early- mid-Roman sandy ware	17	3.75%	243	3.55%	47
DSSA?	Reduced	Early- mid-Roman sandy ware	6	1.32%	62	0.90%	28
GREY	Reduced	Miscellaneous grey wares	6	1.32%	55	0.80%	12
IAGR	Reduced	Native tradition/transitional gritty wares	5	1.10%	149	2.17%	0
IAGR1	Reduced	Iron Age tradition ‘Gritty’: Site fabric 1	33	7.28%	811	11.84%	63
IAGR2	Reduced	Iron Age tradition ‘Gritty’: Site fabric 2	10	2.21%	735	10.73%	21
IAGR4	Reduced	Iron Age tradition ‘Gritty’: Site fabric 4	1	0.22%	46	0.67%	0
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	69	15.23%	1316	19.21%	38
IASA2	Reduced	Iron Age Sandy: Site Fabric 2	52	11.48%	541	7.90%	49
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	43	9.49%	827	12.07%	30
IASH2	Calcareous	Iron Age Shell Gritted: Site Fabric 2	24	5.30%	346	5.05%	79
IASH3	Calcareous	Iron Age Shell Gritted; Site Fabric 3	3	0.66%	76	1.11%	16

IASH5	Calcareous	Iron Age Shell Gritted; Site Fabric 5	4	0.88%	45	0.66%	17
IASH6	Calcareous	Iron Age Shell Gritted: Site Fabric 6	8	1.77%	141	2.06%	0
IASH7	Calcareous	Iron Age Shell Gritted: Site Fabric 7	17	3.75%	376	5.49%	13
CP	Prehistoric	Clay pellets	1	0.22%	8	0.12%	0
ETW	Rock temper	Erratic pebbles broken up as temper	1	0.22%	6	0.09%	0
IAGROG2	Grog	Iron Age grog gritted wares-Site fabric 2	7	1.55%	231	3.37%	32
QU	Prehistoric	Quartz gritted	50	11.04%	310	4.52%	4
QUFL	Prehistoric	Quartz and flint gritted	1	0.22%	14	0.20%	0
QUIV	Prehistoric	Quartz gritted with voids	10	2.21%	160	2.34%	2
CPIV	Prehistoric	Clay pellets with indeterminate voids	4	0.88%	14	0.20%	0
FCLAY	Fired clay	Fired clay	2	0.44%	7	0.10%	0
FCLAY?	Fired clay	Fired clay	6	1.32%	18	0.26%	0
IV	Voids	Indeterminate voids	21	4.64%	76	1.11%	0
Evaluation Trench 46 Fabric Summary							
SAM	Samian	Undifferentiated	2	2.47%	4	0.61%	0
CR	Oxidised	Roman cream wares (various)	1	1.23%	6	0.92%	0
GREY	Reduced	Miscellaneous grey wares	7	8.64%	71	10.84%	12
IAGR1	Reduced	Iron Age tradition 'Gritty': Site fabric 1	4	4.94%	65	9.92%	0
IASA	Reduced	IA type sandy wares	5	6.17%	7	1.07%	0
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	13	16.05%	154	23.51%	2
IASA2	Reduced	Iron Age Sandy: Site Fabric 2	8	9.88%	104	15.88%	26
IASH7	Calcareous	Iron Age Shell Gritted: Site Fabric 7	4	4.94%	109	16.64%	15
IAGROG	Grog	Iron Age Grog tempered wares	1	1.23%	4	0.61%	0
QU	Prehistoric	Quartz gritted	7	8.64%	23	3.51%	0
FCLAY?	Fired clay	Fired clay	2	2.47%	7	1.07%	0
IV	Voids	Indeterminate voids	27	33.33%	101	15.42%	0
Area 40 Form Summary							
Form	**Form Type**	**Form Description**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
A	Amphora	Unclassified form	2	0.44%	81	1.18%	0
BK	Beaker	Unclassified form	26	5.74%	51	0.74%	2
BKBB	Beaker	Butt beaker	2	0.44%	11	0.16%	7
BKNK	Beaker	Necked	14	3.09%	79	1.15%	17
B334	Bowl	Carinated jar/bowl (flat cordon as D&P 1157-9)	12	2.65%	176	2.57%	64
BNK	Bowl	Necked	40	8.83%	620	9.05%	55
BL	Bowl- large	Large	1	0.22%	54	0.79%	10

BNAT	Bowl- large	Native tradition bowl eg. D&P No.700	1	0.22%	245	3.58%	14
CLSD	Closed	Form	26	5.74%	335	4.89%	0
F	Flagon	Unclassified form	8	1.77%	34	0.50%	0
CPN	Jar	Native tradition	8	1.77%	181	2.64%	54
CPN67	Jar	Native as D&P 2014 No. 721	1	0.22%	135	1.97%	14
J	Jar	Unclassified form	21	4.64%	558	8.14%	12
JBR	Jar	Bead rimmed	2	0.44%	7	0.10%	9
JEV	Jar	Everted rim	5	1.10%	214	3.12%	25
JIR	Jar	Inturned rim	13	2.87%	433	6.32%	51
JL	Jar	Large	2	0.44%	93	1.36%	0
JNK	Jar	Necked	9	1.99%	144	2.10%	58
JRUST	Jar	Rusticated	8	1.77%	58	0.85%	0
JUP	Jar	Upright rim	1	0.22%	13	0.19%	6
JB	Jar/Bowl	Unclassified form	2	0.44%	34	0.50%	2
JBL	Jar/Bowl	Large	24	5.30%	725	10.58%	0
JBNAT	Jar/Bowl	Native tradition	8	1.77%	753	10.99%	21
JBNK	Jar/Bowl	Necked	11	2.43%	77	1.12%	29
PGB	Plate	Gallo-Belgic imitation	1	0.22%	37	0.54%	8
-	Unknown	Form uncertain	205	45.25%	1704	24.87%	2
Evaluation Trench 46 Form Summary							
BFL	Bowl	Flange rimmed (eg Gillam 1970 Types 218-220)	5	6.17%	46	7.02%	12
BNAT	Bowl- large	Native tradition bowl, eg. D&P No.700	2	2.47%	104	15.88%	13
CLSD	Closed	Form	6	7.41%	147	22.44%	0
CPN	Jar	Native tradition	4	4.94%	63	9.62%	26
JNK	Jar	Necked	1	1.23%	1	0.15%	2
JB	Jar/Bowl	Unclassified form	2	2.47%	5	0.76%	2
JBCAR	Jar/Bowl	Carinated	1	1.23%	6	0.92%	0
-	Unknown	Form uncertain	60	74.07%	283	43.21%	0

Area 30

7.4.48 Overall, 457 sherds (9.317 kg, 7.93 RE, av. 20.4 g/sherd; Table 18) were recovered from features in Area 30. A further 170 sherds (3.081 kg, 2.06 RE) came from evaluation trench 48. This assemblage includes pottery from a range of ditches, pits and layers from a later Iron Age to Roman settlement. The majority of the pottery dates to the 1st to 2nd centuries AD, with a few contexts containing types dated to the late Roman period. The mean sherd weight of this group is higher than many of the other groups from Zone 2, raised by a number of freshly broken vessels. For a rural site, it is noticeable that there is a good range of fine 'table ware' type vessels, including Late La Tène II/III wares, samian (some subject to repairs), white ware flagons, a fine grey ware platter and a poppy-head beaker, early Roman bowls and carinated B334 necked vessels, suggesting that the inhabitants had probably begun to dine at tables in a more 'Roman' style (Cool 2006).

7.4.49 The majority of coarse wares are local grey wares (including the early DSSA type), native tradition coarse gritted wares and grog-gritted types. Unusual vessels like a grey ware hemispherical cup (D011) further suggest that the site had a need for table ware vessels in the early Roman period beyond the decorative or curio interest of owning samian. A single

sherd of Bourne type shell-gritted ware occurs but no Dales ware or late Roman shell-gritted types. However, a few of the grey ware form types present suggest that activity continued on the site until at least the late 3rd century AD. A stamped early Roman mortarium is also noteworthy.

7.4.50 Ditch 300149 included a good fresh group of 14 early Roman sherds, including native tradition ware jars, a necked storage jar with combed decoration, grey ware, a sherd from a Drag. 18 platter and a Gallo-Belgic type platter in a fine grey ware (D012).

7.4.51 Ditch 300150 contained 16 sherds probably dating to the 1st century AD. All are from Iron Age or Iron Age tradition type vessels, including a burnished sherd in the IASA2 fabric group of an unusual type, perhaps a lid.

7.4.52 Ditch 300152 contained 17 sherds likely to date to the 1st century AD, probably prior to the conquest, all from Iron Age jars, one with an everted rim.

7.4.53 Ditch 300153 contained much of the pottery from the site (381 sherds, max 189 vessels, 8.78 kg, 6.19 RE). The majority were probably made in the 2nd century AD, most likely the second half, but a few late Roman sherds suggest that the feature may have remained at least partially open into the 3rd century AD. Repaired vessels include a samian bowl and a carinated grey ware B334 vessel (D04), which suggest that the inhabitants of the site had a requirement for table wares that exceeded their ability to replace broken vessels with new ones. Sherds from flagons in white ware and light-oxidised fabrics (D006), a poppy-head beaker in the PART fabric (D005) and further samian vessels suggest the feature may have received a dump of much of the table ware that had been in use on the site. A stamped white ware mortarium (D07) is also of note. Transitional wares are present, mostly large bowls with wedge-shaped rims. Early Roman grey wares include a necked jar (D010) with dunting cracking and carbonised residues, a B334, and a rusticated jar. A few late Roman sherds were recovered from slot 300057, notably from a jar with a collared rim (JCR) suggestive of a late 3rd century AD date.

7.4.54 Ungrouped features included ditches, pits and layers dating to the early Roman period or Late Iron Age. It is noticeable that there was also a high proportion of table ware vessels including sherds from three B334 grey ware necked vessels, a grey ware bowl mimicking samian form 36 from layer 4801, a grey hemispheric cup (D011) from pit 300107, and a samian Drag. 33 cup and a grey ware B321V bowl from ditch 300138.

Table 18 Area 30 summary

Area 30 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
SAM	Samian	Undifferentiated	15	3.28%	305	3.27%	38
SAMCG	Samian	Central Gaulish	1	0.22%	3	0.03%	0
SAMSG	Samian	South Gaulish	1	0.22%	5	0.05%	10
MORT	Mortaria	Mortaria; undifferentiated	1	0.22%	206	2.21%	2
GFIN	Fine	Miscellaneous fine grey wares	2	0.44%	65	0.70%	27
PART	Fine	Parisian type wares	28	6.13%	133	1.43%	12
CR	Oxidised	Roman cream wares (various)	8	1.75%	130	1.40%	100
OX	Oxidised	Misc. oxidized wares	1	0.22%	4	0.04%	0
OX?	Oxidised	Misc. oxidised wares	4	0.88%	20	0.21%	0

OXL	Oxidised	Light oxidised fabrics	5	1.09%	41	0.44%	0
BBT	Reduced	Black Burnished type copies	1	0.22%	4	0.04%	0
DSSA	Reduced	Early- mid-Roman sandy ware	88	19.26%	1238	13.29%	126
GREY	Reduced	Miscellaneous grey wares	134	29.32%	3639	39.06%	257
GREY?	Reduced	Miscellaneous grey wares	1	0.22%	2	0.02%	2
GREYC	Reduced	Coarse Grey ware	1	0.22%	222	2.38%	0
IAGR1	Reduced	Iron Age tradition 'Gritty': Site fabric 1	30	6.56%	1069	11.47%	80
IAGR2	Reduced	Iron Age tradition 'Gritty': Site fabric 2	15	3.28%	202	2.17%	12
IAGR4	Reduced	Iron Age tradition 'Gritty': Site fabric 4	27	5.91%	1138	12.21%	101
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	6	1.31%	42	0.45%	7
IASA2	Reduced	Iron Age Sandy: Site Fabric 2	5	1.09%	34	0.36%	9
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	43	9.41%	664	7.13%	2
IASH6	Calcareous	Iron Age Shell Gritted: Site Fabric 6	17	3.72%	34	0.36%	0
IASH7	Calcareous	Iron Age Shell Gritted: Site Fabric 7	17	3.72%	102	1.09%	8
SLSHB	Calcareous	Bourne shell gritted	1	0.22%	2	0.02%	0
IAGROG2	Grog	Iron Age grog gritted wares-Site fabric 2	4	0.88%	10	0.11%	0
FCLAY	Fired Clay	Fired Clay	1	0.22%	3	0.03%	0
Trench 48 Fabric Summary							
GFIN	Fine	Miscellaneous fine grey wares	2	1.18%	14	0.45%	0
OXL	Oxidised	Light oxidised fabrics	2	1.18%	18	0.58%	0
DSSA	Reduced	Early- mid-Roman sandy ware	3	1.76%	59	1.91%	15
GREY	Reduced	Miscellaneous grey wares	107	62.94%	2100	68.16%	170
GROG	Reduced	Grog-tempered wares	12	7.06%	283	9.19%	13
IAGR1	Reduced	Iron Age tradition 'Gritty': Site fabric 1	1	0.59%	13	0.42%	0
IAGR2	Reduced	Iron Age tradition 'Gritty': Site fabric 2	25	14.71%	445	14.44%	6
IASA	Reduced	IA type sandy wares	1	0.59%	1	0.03%	0
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	2	1.18%	24	0.78%	2
IASA2	Reduced	Iron Age Sandy: Site Fabric 2	2	1.18%	48	1.56%	0
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	5	2.94%	39	1.27%	0
IASH6	Calcareous	Iron Age Shell Gritted: Site Fabric 6	8	4.71%	37	1.20%	0
Area 30 Form Summary							
Form	**Form Type**	**Form Description**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**

BKEV	Beaker	Everted rim	4	0.88%	14	0.15%	19
BKNK	Beaker	Necked	20	4.38%	107	1.15%	18
BKPH	Beaker	Poppy head beaker	28	6.13%	133	1.43%	12
38	Bowl	Samian form- see Webster 1996	11	2.41%	287	3.08%	38
B	Bowl	Unclassified form	4	0.88%	89	0.96%	0
B321V	Bowl	As Coppack 1973 fig. 5.11	1	0.22%	6	0.06%	2
B334	Bowl	Carinated jar/bowl (flat cordon as D&P 1157-9)	11	2.41%	237	2.54%	29
BFL	Bowl	Flange rimmed (e.g. Gillam 1970 Types 218-220)	4	0.88%	253	2.72%	45
BGR	Bowl	With grooved rim	1	0.22%	11	0.12%	11
BL	Bowl- large	Large	1	0.22%	22	0.24%	0
BNAT	Bowl- large	Native tradition bowl e.g. D&P No. 700	15	3.28%	765	8.21%	60
BNNK	Bowl- large	Large bowl with no neck	6	1.31%	289	3.10%	27
BWM	Bowl- large	Wide-mouthed; D&P No. 1225-30	3	0.66%	105	1.13%	16
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	3	0.66%	130	1.40%	39
BD	Bowl/dish	-	2	0.44%	12	0.13%	0
CLSD	Closed	Form	47	10.28%	804	8.63%	0
33	Cup	Samian form - see Webster 1996	1	0.22%	4	0.04%	0
CHEM	Cup	Hemispherical as Rhenish G210 etc.	4	0.88%	92	0.99%	34
FTR11	Flagon	Top-rimmed (as Webster 1949 fig 13.64)	1	0.22%	88	0.94%	100
FJ	Flagon/jar	Unclassified form	3	0.66%	39	0.42%	0
CPN	Jar	Native tradition	6	1.31%	204	2.19%	66
CPN140	Jar	Native tradition - Darling & Jones 1988 fig. 7.55	2	0.44%	92	0.99%	13
J	Jar	Unclassified form	6	1.31%	269	2.89%	6
JBN3	Jar	Bourne type jar no. 3; Bolton 1968 fig. 1.1	33	7.22%	603	6.47%	53
JCR	Jar	Collared rim as Swanpool type C40-1	2	0.44%	182	1.95%	28
JEV	Jar	Everted rim	10	2.19%	198	2.13%	45
JH	Jar	Handled	2	0.44%	115	1.23%	0
JL	Jar	Large	2	0.44%	392	4.21%	37
JNK	Jar	Necked	1	0.22%	7	0.08%	11
JRUST	Jar	Rusticated	3	0.66%	34	0.36%	0
JS	Jar	Storage	1	0.22%	60	0.64%	0
JBKNK	Jar/Beaker	Necked	3	0.66%	12	0.13%	16
JB	Jar/Bowl	Unclassified form	4	0.88%	129	1.38%	4
JBL	Jar/Bowl	Large	51	11.16%	2136	22.93%	0
JBNK	Jar/Bowl	Necked	6	1.31%	38	0.41%	12
L	Lid	Unclassified form	2	0.44%	16	0.17%	9
MHK	Mortaria	Hook-rimmed as Gillam 237-45	1	0.22%	206	2.21%	2

18	Plate	Samian form- see Webster 1996	1	0.22%	5	0.05%	10
PGB	Plate	Gallo-Belgic imitation	2	0.44%	65	0.70%	27
-	Unknown	Form uncertain	148	32.39%	1064	11.42%	4
JB	Jar/Bowl	Unclassified form	4	0.88%	129	1.38%	4
JBL	Jar/Bowl	Large	51	11.16%	2136	22.93%	0
Trench 48 Form Summary							
B334	Bowl	Carinated jar/bowl (flat cordon as D&P 1157-9)	6	3.53%	84	2.73%	38
B36	Bowl	Copy of Samian form 36	1	0.59%	47	1.53%	17
BTR	Bowl	Triangular rimmed (e.g. Gillam 1970 Types 222-3)	1	0.59%	31	1.01%	12
BL	Bowl- large	Large	5	2.94%	103	3.34%	13
BNAT	Bowl- large	Native tradition bowl e.g. D&P No.700	1	0.59%	102	3.31%	6
BWM	Bowl- large	Wide-mouthed; D&P No. 1225-30	1	0.59%	58	1.88%	9
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	5	2.94%	521	16.91%	37
CLSD	Closed	Form	59	34.71%	902	29.28%	0
CPN	Jar	Native tradition	2	1.18%	93	3.02%	23
J	Jar	Unclassified form	1	0.59%	10	0.32%	12
J?	Jar	Unclassified form	2	1.18%	24	0.78%	2
JEVC	Jar	Everted rim- curved as Gillam type 135	3	1.76%	91	2.95%	22
JL	Jar	Large	1	0.59%	99	3.21%	0
JNK	Jar	Necked	3	1.76%	59	1.91%	15
JS	Jar	Storage	3	1.76%	294	9.54%	0
JBKFO	Jar/Beaker	Folded; indeterminate type	2	1.18%	22	0.71%	0
JB	Jar/Bowl	Unclassified form	1	0.59%	22	0.71%	0
JBL	Jar/Bowl	Large	2	1.18%	79	2.56%	0
-	Unknown	Form uncertain	71	41.76%	440	14.28%	0

Area 31

7.4.55 Ninety-nine sherds (0.825 kg, 0.28 RE, av. 8.3 g/sherd) were recovered from features in Area 31. A further seven sherds (36 g, 0 RE) came from evaluation trench 140. These groups are summarised in Table 19. The pottery mostly consists of small handmade sherds with a low average sherd weight, with few feature sherds. Shell-gritted sherds are scarce and the majority of fabrics are quartz sand-gritted with a few sherds with voids (IV) or quartz-sand with voids (QUIV). Flint-gritted sherds suggest earlier prehistoric activity, and this would fit with the other evidence from the area including an assemblage of worked flint.

7.4.56 The featured sherds include a flat base in the IV fabric from ditch 310170 and an example in the QU fabric group from layer 310083. A jar with an everted rim in the QU fabric came from occupation layer 310003, and jar rims with rounded rims from postholes 310118 and 310116. A jar with a globular body and a flattened lip (with the outer edge gently rounded) and a 'barrel shaped jar' with an internally bevelled rim (Challis and Harding 1975), both in the QUIV fabric, were recovered from ditch 310170. These forms occur in the Bronze Age and earlier Iron Age, so a 2nd millennium BC date for this group appears possible. Good groups of pottery of this date are known from sites in Lincolnshire and, where deposition conditions are favourable – at waterlogged sites or within well-preserved graves – for

example, there have been some informative assemblages (e.g., Allen 2009; Allen et al. 1987), but the pottery from Area 31 is not so well preserved.

7.4.57 A Scored ware sherd in the IASA1 fabric from pit 310122 suggests that some of the activity dates to the Middle or Middle to Late Iron Age (Knight 2002), but there are none of the diagnostic late La Tène type necked vessels or finer fabrics that would support a date in the Late Iron Age. No Roman pottery is present.

Table 19 Area 31 summary

Area 31 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	9	9.09%	71	8.61%	0
FL	Prehistoric	Flint	3	3.03%	32	3.88%	0
QU	Prehistoric	Quartz gritted	45	45.45%	380	46.06%	15
QUIV	Prehistoric	Quartz gritted with voids	35	35.35%	302	36.61%	13
FCLAY?	Fired Clay	Fired Clay	2	2.02%	21	2.55%	0
IV	Voids	Indeterminate voids	5	5.05%	19	2.30%	0
Trench 140 Fabric Summary							
IASA1	Reduced	Iron Age Sandy: Site Fabric 1	5	71.43%	29	80.56%	0
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	2	28.57%	7	19.44%	0
Area 31 Form Summary							
Form	**Form Type**	**Form Description**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
J	Jar	Unclassified form	16	16.16%	166	20.12%	11
JIR	Jar	Inturned rim	2	2.02%	14	1.70%	2
Trench 140 Form Summary							
-	Unknown	Form uncertain	7	100.00%	36	100.00%	0

Results: Zone 3

7.4.58 In total, 2252 sherds (51.994 kg, 47.31 RE, av. 23.1 g/sherd) were recovered from Zone 3. The pottery is fresher with a higher mean sherd weight than that seen from Zone 2. The higher proportion of pottery dating to the Roman period from Zone 3 and more favourable soil conditions for preservation mostly explain this difference. The higher proportion of pottery from contexts that could be described as ‘primary refuse’ deposits as opposed to those from ‘secondary refuse’ deposits (Hill 1995; cf Crummy and Terry 1979, 54–5) fits the pattern of other assemblages from the Boston area, and also from the 2017 Triton Knoll site in the Langriville and Holland Fen with Brotherton parishes (Rowlandson and Fiske 2018; 2020b; 2020c). It is unclear why this occurs, but it appears that on these sites fresh material was disposed of in deep, often waterlogged ditches rather than being middened and subsequently re-deposited. This may have had some significance as a ‘structured deposition’ or may merely reflect a different strategy for rubbish disposal (see discussion of such themes in Hill 1995; Chadwick 2008a; 2008b; 2009; 2019; Brown 2013). It is even possible that elements of the Iron Age and Roman ritual practices encountered at ‘watery places’, such as Fiskerton, were undertaken on more domestic sites too (Field and Parker-Pearson 2003; Darling and Field 2003).

Area 52

7.4.59 Two hundred and five sherds (5.381 kg, 3.87 RE, av. 26.2 g/sherd) were recovered from Area 52 (Table 20), with a further 10 sherds (0.287 kg, 0.19 RE) from evaluation trenches 470 and 471 (Wessex Archaeology 2021c; Rowlandson and Fiske 2021b). The pottery was mostly from ditches, pits, gullies, a palaeochannel and a pond. The assemblage from this area provides a good comparison with those from other parts of the Viking Link scheme, as well as other excavations near the River Witham (Rowlandson and Fiske 2018).

7.4.60 The pottery dates to the 1st to 3rd century AD. Although Nene Valley grey wares were produced deep into the 3rd century AD, there are no diagnostic forms amongst the assemblage that suggest occupation into the mid to late 3rd century AD. Rather, the presence of shell-gritted Bourne type wares and the low levels of transitional grog-gritted wares suggest that most of the activity on this site occurred in the mid to late 2nd century AD. Colour-coated wares are restricted to roughcast beaker types typically of 2nd-century AD date. A white ware segmental flanged bowl was also found within ditch 520152 and adjacent gully 520149. A range of sandy grey wares similar to those in use at Sleaford in the 2nd century AD are present, along with Nene Valley type grey wares seen on sites in the south of the county (Rowlandson et al. 2015; Rowlandson and Fiske 2019b). Sherds from two stamped mortaria are also of note, but only a single samian sherd and no amphora are present.

7.4.61 Ditch 520193 contained 38 Roman sherds ranging in date from the late 1st to 3rd century AD, although the group was probably deposited in the 2nd century AD. A rim fragment from a stamped white ware mortarium (D031) is the most significant find, with other pottery including sherds from a grey ware lipped bowl, a wide-mouthed bowl (BWM3) and jars with hooked everted rims (JHER).

7.4.62 Pit 520194 contained five grey ware sherds including part of a jar with an everted rim.

7.4.63 Many other ditches, pits and gullies contained small groups that probably date to the 2nd century AD, but lozenge-shaped pit 520064 contained shell-gritted wares in the IASH1 group that may belong to the 1st century AD. Pit 520027 contained 28 sherds including pieces from a grey ware lipped bowl, a sherd from a colour-coated beaker and a grey ware lid-seated jar that probably date to the mid to late 2nd century AD or perhaps slightly later.

Table 20 Area 52 summary

Area 52 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
SAM	Samian	Undifferentiated	1	0.49%	6	0.11%	6
MOLIN?	Mortaria	Lincoln mortaria	1	0.49%	353	6.56%	39
MOMH3	Mortaria	Mancetter-Hartshill mortaria: metasediment trits; sandy white fabric Leicester MO19	2	0.98%	275	5.11%	18
CC1	Fine	Colour coated fabric 1	10	4.88%	105	1.95%	0
NVGCC	Fine	Nene Valley grey colour-coated ware	3	1.46%	69	1.28%	9
CR	Oxidised	Roman cream wares (various)	5	2.44%	207	3.85%	35
OX?	Oxidised	Misc. oxidised wares	2	0.98%	16	0.30%	0
DSSA	Reduced	Early- mid-Roman sandy ware	8	3.90%	92	1.71%	0
GREY	Reduced	Miscellaneous grey wares	128	62.44%	2977	55.32%	222
IAGR1	Reduced	Iron Age tradition ‘Gritty’: Site fabric 1	1	0.49%	22	0.41%	0

IAGR2	Reduced	Iron Age tradition 'Gritty': Site fabric 2	2	0.98%	88	1.64%	0
IAGR4	Reduced	Iron Age tradition 'Gritty': Site fabric 4	9	4.39%	526	9.78%	32
IASA?	Reduced	IA type sandy wares	1	0.49%	5	0.09%	0
NVGW?	Reduced	Nene Valley grey ware	1	0.49%	37	0.69%	0
NVGWC	Reduced	Nene Valley grey ware coarse sandier	2	0.98%	38	0.71%	7
NVGY	Reduced	Earlier Nene Valle grey ware	2	0.98%	211	3.92%	0
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	9	4.39%	222	4.13%	2
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	13	6.34%	77	1.43%	0
SLSHB	Calcareous	Bourne shell gritted	4	1.95%	50	0.93%	17
FCLAY?	Fired clay	Fired clay	1	0.49%	5	0.09%	0
Trench 470 Fabric Summary							
BB1	Reduced	Black burnished 1, unspecified	1	100.00%	26	100.00%	19
Trench 471 Fabric Summary							
IAGR3	Reduced	Iron Age tradition 'Gritty': Site fabric 3	1	11.11%	22	8.43%	0
SLSHB	Calcareous	Bourne shell gritted	2	22.22%	95	36.40%	0
MOD	Post Med+	Modern pottery, undifferentiated	6	66.67%	144	55.17%	0

Area 52 Form Summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
BK	Beaker	Unclassified form	1	0.49%	13	0.24%	0
BKRC	Beaker	Roughcast	7	3.41%	64	1.19%	0
36	Bowl	Samian form- see Webster 1996	3	1.46%	69	1.28%	9
B	Bowl	Unclassified form	1	0.49%	20	0.37%	0
B334	Bowl	Carinated jar/bowl (flat cordon as D&P 1157-9)	3	1.46%	103	1.91%	40
BFL	Bowl	Flange rimmed (eg Gillam 1970 Types 218-220)	7	3.41%	290	5.39%	48
BSEG	Bowl	Segmental as Gillam 1970 Nos. 294-5	3	1.46%	127	2.36%	35
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	6	2.93%	156	2.90%	22
BD	Bowl/dish	-	1	0.49%	6	0.11%	6
CLSD	Closed	Form	49	23.90%	1294	24.05%	0
J	Jar	Unclassified form	7	3.41%	435	8.08%	15
JBN3	Jar	Bourne type jar no. 3; Bolton 1968 fig. 1.1	1	0.49%	26	0.48%	15
JEV	Jar	Everted rim	4	1.95%	30	0.56%	4
JHER	Jar	Hooked everted rim (Rigby & Stead 1976 fig 64.4)	3	1.46%	75	1.39%	23
JL	Jar	Large	2	0.98%	80	1.49%	0
JLH	Jar	Lug-handled	5	2.44%	466	8.66%	32
JLS	Jar	Lid-seated	5	2.44%	337	6.26%	37
JNK	Jar	Necked	1	0.49%	23	0.43%	19
JBKCAR	Jar/Beaker	Carinated	3	1.46%	75	1.39%	19
JB	Jar/Bowl	Unclassified form	1	0.49%	6	0.11%	2
JBCAR	Jar/Bowl	Carinated	2	0.98%	9	0.17%	0
JBL	Jar/Bowl	Large	1	0.49%	112	2.08%	0
MHK	Mortaria	Hook-rimmed as Gillam 1970 Nos. 237-45	3	1.46%	628	11.67%	57
-	Unknown	Form uncertain	86	41.95%	937	17.41%	4

Trench 470 Form Summary							
JBR	Jar	Bead rimmed	1	100.00%	26	76.47%	19
Trench 471 Form Summary							
CLSD	Closed	Form	2	22.22%	95	36.40%	0
-	Unknown	Form uncertain	7	77.78%	166	63.60%	0

Area 53

7.4.64 Two hundred and sixty-four sherds (4.824 kg, 2.84 RE, 18.3 g/sherd) were recovered from features in Area 53 (Table 21). The assemblage was fairly fresh but most of the material was from ditches with small quantities from gullies, ring ditches and tree/hedge-related features.

7.4.65 The assemblage has a slightly later date range than that from Area 52. Iron Age and Iron Age tradition wares are restricted to sherds from a Late La Tène III style necked storage jar with stabbed decoration (tree-throw hole 530177) and a sherd from an IAGR2 vessel from ditch 530301. A necked shell-gritted storage jar (IASH1 fabric) is probably of 1st-century AD date and may have been brought to the site to serve a specific function, but overall, the small quantities of early Roman NVGY and SLGY grey wares suggest that Area 53 is marginal to an early Roman phase of settlement.

7.4.66 The majority of shell-gritted sherds are in the wheel-made Bourne type shell-gritted ware (SLSHB), suggesting a 2nd to earlier 3rd-century AD bias amongst this group. There is also a higher quantity of samian (mostly from Drag. 33 cups) than seen in Area 52. Other fine wares include a fine grey ware beaker with an everted rim (GFIN), a rough-cast colour-coated beaker, a lipped bowl and a necked jar or bowl, as well as sherds from white ware flagons. Nene Valley grey ware (NVGW) and Nene Valley type coarser grey wares (NVGWC) are present in larger numbers than from Area 52. However, no developed wide-mouthed bowls (BWM3), straight sided bead and flanged bowls (BFB) or other types that would confirm a late Roman phase of activity are present. The range of pottery, then, fits within the mid-Roman period (mid-2nd to mid-3rd century AD) and it seems likely that no new pottery reached the site after a point sometime in the second half of the 3rd century AD.

Table 21 Area 53 summary

Area 53 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
SAM	Samian	Undifferentiated	4	1.52%	47	0.97%	18
GFIN	Fine	Miscellaneous fine grey wares	4	1.52%	22	0.46%	7
CC1	Fine	Colour coated fabric 1	12	4.55%	205	4.25%	30
BWHGR	Oxidised	Northamptonshire type 'burnt' grog-gritted white ware	1	0.38%	12	0.25%	5
CR	Oxidised	Roman cream wares (various)	21	7.95%	146	3.03%	0
CR?	Oxidised	Roman cream wares	1	0.38%	3	0.06%	0
BBT	Reduced	Black Burnished type copies	3	1.14%	99	2.05%	26
GREY	Reduced	Miscellaneous grey wares	85	32.20%	1582	32.79%	67
GREY?	Reduced	Miscellaneous grey wares	12	4.55%	239	4.95%	0
IAGR2	Reduced	Iron Age tradition 'Gritty': Site fabric 2	4	1.52%	51	1.06%	0
NVGW	Reduced	Nene Valley grey ware	25	9.47%	774	16.04%	78
NVGW?	Reduced	Nene Valley grey ware	1	0.38%	10	0.21%	7

NVGWC	Reduced	Nene Valley grey ware coarse sandier	12	4.55%	79	1.64%	4
NVGY	Reduced	Earlier Nene Valle grey ware	2	0.76%	98	2.03%	0
SLGY	Reduced	* South Lincs grey cf NVGY	1	0.38%	25	0.52%	0
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	26	9.85%	492	10.20%	18
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	11	4.17%	150	3.11%	2
SLSHB	Calcareous	Bourne shell gritted	38	14.39%	788	16.33%	22
MOD	Post Med+	Modern pottery, undifferentiated	1	0.38%	2	0.04%	0

Area 53 Form Summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
BKEV	Beaker	Everted rim	3	1.14%	25	0.52%	22
BKRC	Beaker	Roughcast	1	0.38%	2	0.04%	0
BFL	Bowl	Flange rimmed (eg Gillam 1970 Types 218-220)	11	4.17%	211	4.37%	36
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	1	0.38%	40	0.83%	11
BD	Bowl/dish	-	1	0.38%	22	0.46%	0
CLSD	Closed	Form	60	22.73%	1655	34.31%	0
33	Cup	Samian form- see Webster 1996	3	1.14%	45	0.93%	16
DGR	Dish	Grooved rim	1	0.38%	155	3.21%	40
F	Flagon	Unclassified form	13	4.92%	83	1.72%	0
F?	Flagon	Unclassified form	4	1.52%	39	0.81%	0
FJ	Flagon/jar	Unclassified form	1	0.38%	10	0.21%	0
J	Jar	Unclassified form	5	1.89%	116	2.40%	8
JBN3	Jar	Bourne type jar no. 3; Bolton 1968 fig. 1.1	4	1.52%	62	1.29%	14
JEVC	Jar	Everted rim- curved as Gillam 1970 type 135	3	1.14%	99	2.05%	26
JL	Jar	Large	3	1.14%	177	3.67%	14
JNK	Jar	Necked	5	1.89%	29	0.60%	20
JS52	Jar	Storage (form as Webster 1949 fig 12.48)	26	9.85%	492	10.20%	18
JWM	Jar	Wide-mouthed as RPNV 3-5 (Howe et al 1980)	7	2.65%	354	7.34%	30
JBKNK	Jar/Beaker	Necked	1	0.38%	7	0.15%	7
JB	Jar/Bowl	Unclassified form	2	0.76%	24	0.50%	4
JBL	Jar/Bowl	Large	5	1.89%	302	6.26%	0
JBNK	Jar/Bowl	Necked	1	0.38%	10	0.21%	7
LD	Lid/dish	Unclassified	1	0.38%	14	0.29%	7
-	Unknown	Form uncertain	102	38.64%	851	17.64%	4

Area 54

7.4.67 Just two sherds (4 g, 0 RE) were recovered from Area 54, with one further sherd (54 g, 0.12 RE) from evaluation trench 479. All three belong to the sandy grey ware fabric group (GREY). A sherd from a dish (D452) dating to the later 1st to 2nd century AD retrieved from ditch 47910 is the only one of note.

Area 55

7.4.68 Overall, 1765 sherds (41.454 kg, 40.48 RE, av. 23.5 g/sherd) were recovered from features in Area 55. A further 333 sherds (5.962 kg, 6.37 RE) came from evaluation trenches 482, 483 and 484 (Table 22). The sherds survive in good condition. This assemblage has regional significance for understanding trade, salt production and activity on the Lincolnshire coast. The chronological range, composition (fabrics and vessel forms) and perhaps function of this assemblage share similarities to material from Gold Dyke, Wrangle (Darling and Precious 2001) and other sites from the Viking Link and Triton Knoll schemes (Rowlandson and Fiske 2018; 2020b; 2020c; Rowlandson 2019).

7.4.69 Activity within Area 55 appears to begin in the mid to late 1st century AD, continuing until sometime in the first half of the 3rd century AD. The absence of any Late La Tène II/III 'fine ware' necked jars and bowls, and the low number of transitional channel-rimmed jars and necked storage jars, suggests that there was not a pre-Conquest settlement prior to the Roman activity on the site. The stratigraphic evidence from Area 55, coupled with the pottery itself and the other material types recovered, indicate that Roman saltmaking and pottery production activities took place. Regrettably, a kiln structure was not found but a large pit/pond contained a group of pottery waste suggesting grey ware production occurred near the site, most probably in the second half of the 2nd or early 3rd century AD. Activity on the site appears to have finished sometime early in the second half of the 3rd century AD. Only a single Dales ware vessel was recognised and no examples of developed wide-mouthed bowls (BWM3) or straight sided bead and flanged bowls (BFB) occur, while the colour-coated wares are restricted to types in circulation during the later 2nd to earlier 3rd century AD. This period of activity makes the site an excellent example of an early to mid-Roman industrial site from this part of Lincolnshire. By the late Roman period, the focus of settlement had moved elsewhere.

7.4.70 However, the range of pottery present suggests that, along with industrial activities, the inhabitants might have enjoyed at least some level of 'gracious living', having access to a range of fine wares including an unusual mica dusted 'wine strainer' type not typically encountered in Lincolnshire and more common in larger population centres such as London. The extent to which access to such vessels is indicative of high statues remains uncertain, but its presence in this assemblage, along with a Verulamium region mortarium, highlights the exploitation of extensive trading routes north towards Lincoln, southwards towards London, and along the Upper Nene river valley to the west, evidenced by some of the grog-gritted wares and a possible Upper Nene Valley mortarium. The commodity most likely to have been traded is salt rather than the grey wares produced on the site, but it is probably by means of such exchanges that vessels such as the mica-dusted 'wine-strainer' reached the site.

7.4.71 Considerable numbers of sherds provide evidence of use, customisation, alteration and repair. Sherds from four shell-gritted jars, for example, show signs of external 'salt-bleaching' and a further six vessels have white mineral deposits on their interior surfaces, suggesting they may have been used for boiling brine. Internal carbonised residues were evident on 25 vessels, externally on a further four vessels, and on sherds possibly re-used as lids. These deposits are mostly on medium mouthed jars in the SLSHB, GREY or IAGR 2 fabrics, although examples also occur on Bourne type bowls (BBN3) and a dish (D452), perhaps used for cooking or as lids. Recent analysis of Roman pottery from Goxhill, a coastal marsh site with evidence for salt production in North Lincolnshire, showed that vessels with carbonised residues had been used for the intensive boiling of ovicaprid (cow/sheep/goat) carcass fats for cooking or rendering purposes (Dunne and Evershed 2018; Rowlandson and Fiske 2020d), and similar activities may have taken place at the Area 55 site.

7.4.72 Two fine ware vessels, a Nene Valley grey ware dish (D068, multiple contexts) in use during the 3rd century AD and a 2nd-century AD samian bowl (context 550277), exhibit repairs with a resin glue and metal cleats respectively. This perhaps reflects a change in the availability of fine ware bowls and dishes to the site during the 3rd century AD, either as a result in a decline in the trade in samian ware or a decline of the access to traded goods in general. A fragment from a grey ware cheese-press appears to have been trimmed to a disc (D080) and use-wear is evident on a samian cup base (context 550133), internally on two mortaria sherds and on a Dressel 20 amphora handle that may have been used as a pestle or rubber (P, context 550001).

7.4.73 Pond 550022 contained 391 sherds (max 212 vessels, 8.800 kg, 9.79 RE) mostly dating to the mid-2nd to perhaps earlier 3rd century AD. A few smaller fragments of the native tradition ware, SLGY grey ware and a Verulamium region mortarium fragment may be of early Roman date. Colour-coated wares are restricted to beakers, mostly rough-cast types of the 2nd century AD and a beaker with barbotine hairpin decoration. Other sherds of note came from white ware flagons, samian including a Drag. 33 cup, a small amphora fragment, and a sherd from a white ware mortarium possibly from the Upper Nene Valley. Nene Valley grey ware (20 sherds, mostly from necked jars) and coarser, light-fired grey wares (NVGWC; 14 sherds) also occur. The shell-gritted sherds are mostly Bourne type wares representing a maximum of 26 vessels, the majority being necked jars (218710, D01), with one typical bowl with a grooved rim (D050).

7.4.74 The vast majority of sherds are sandy grey wares (GREY), representing a maximum of 100 vessels (180 sherds, 6.35 RE). These include a significant quantity of production waste, presumably from a nearby kiln. Sherds from 14 vessels show signs of misfiring. Sherds from four warped vessels came from evaluation trench 482 – three jars with scored wavy line decoration on the shoulders and a dish with a grooved rim and burnished decoration (218710 D02–5). Six other sherds show signs of being overfired, one is spalled, while sherds from a vessel with frilled decoration has patchy surface colouration (218710, D07). A further warped vessel, a necked jar, came from fill 550116 of pond 550022 (D048), while another necked jar with spalling (D049) and a Bourne type bowl with a grooved rim were also found in the same deposit (BBN3, D048). Broadly similar forms were produced in sandy grey ware fabrics at Tattershall Thorpe (Rowlandson and Fiske 2020d) over 15 km away, and in shell-gritted fabrics at Bourne (Samuels 1983). Pottery waste has also been recognised during the Triton Knoll SPE3 excavation near Anton's Gowt, where a misfired Black Burnished ware 1 type jar with dunting cracking was found (Rowlandson and Fiske 2020b).

7.4.75 No kilns are presently recorded from the Swineshead area (Swan 1984), although a new production site in this part of Lincolnshire would not be surprising. Regrettably, by the very nature of linear schemes, the narrow area of investigation may miss key features. Pond 550022 and associated features clearly contained a good range of misfired vessels alongside other material more typical of 'ordinary' domestic assemblages from the area. The clay layers at the base of the pond share similarities with deposits found at the base of clay storage/processing pits at Market Rasen (Rowlandson 2005; Mumford and Palmer Brown 2007; personal observation of the 'Tesco' MRH04 site), and the combination of gully and large pit/pond may have been suitable as tanks for clay 'washing', 'puddling' or processing as known from a number of Roman pottery industries (cf. Peacock 1982, 52–55 and 120–2). It is therefore possible that a kiln is situated just beyond the limits of the excavation area.

7.4.76 Ditch 550508 contained 198 sherds from a maximum of 58 vessels. The majority of the pottery dates to the later 2nd to early 3rd century AD. Colour-coated beakers include a

cornice rimmed vessel likely to date to the 2nd century AD, a folded vessel with a curved rim, and a scale and folded beaker, both likely to date to the 3rd century AD. A sherd from a samian form 33 cup, a Dressel 20 amphora sherd, white ware and Nene Valley grey wares are present in small quantities. Sherds from eight vessels attributed to the GREY group, including sherds from a necked jar or beaker and a beaker with an everted rim, have carbonised deposits. Twenty of the vessels are ungrouped shell-gritted wares (SHEL), mostly from large jars, and a number of vessels have surface signs of white salt-bleaching, so may have held boiling brine (Darling 2001). The Bourne type shell-gritted wares include two necked jars (D083-4) and a bowl with a grooved lip (D051).

7.4.77 Ditch 550518 contained 210 sherds from a maximum of 115 vessels which date from the mid-1st to the 2nd century AD, with a few vessels that may have been deposited in the early 3rd century AD. Samian forms include pieces from a Drag. 33 cup and a Drag. 35 vessel; sherds from a cornice rimmed colour-coated beaker also occur in this group. Part of a mica-dusted 'wine-strainer' form (Davis et al. 1993, form 9M46) in a fine oxidised mica-dusted fabric may be an import, at least from southern Britain, while a sherd from a Verulamium white ware mortarium and a further sandy white ware segmental flanged bowl may have been transported to the site via London. A sherd from a powdery white ware mortarium may be an import from northern Gaul. Sherds of the early Roman local NVGY fabric include part of a biconical beaker similar to Cam 120 (Hawkes and Hull 1947) that was probably manufactured in the 1st century AD. Body sherds from three Dressel 20 amphorae also occur. A Bourne type shell-gritted jar shows signs of carbonised residues (D057), and a small range of native tradition wares are present, mostly jars (IAGR1 D046-7, D054). Grey wares include a range of cordoned jars (D043, D058), necked jars and a bowl with a split rim (D045, B333), all possibly of early Roman date. Fresh fragments from a Mancetter-Hartshill mortarium with a triple ribbed rim and fired clay trituration grits suggest that the feature remained open until at least the late 2nd century AD, perhaps as late as the early 3rd (D055, MOMH2, MTRB; Darling and Precious 2014, no. 1667, AD180-230).). A Nene Valley grey ware jar with a split rim may also date to the later 2nd to early 3rd century AD (D059, NVGW, JBIF).

7.4.78 Ditch 550520 contained 76 sherds from a maximum of 59 vessels. The range of non- local wares includes samian, a sherd of Black Burnished ware 1, grog-gritted wares with light-fired fabrics possibly of a Northamptonshire origin (Timby 2009, BWHGR and BWHSY), and a possible sherd of Verulamium white ware. Other table wares include a colour-coated ware cornice rimmed beaker (CC1) and sherds from white ware flagons. Nene Valley grey wares include a copy of a samian form 31 bowl and a wide-mouthed jar, while a dish with a grooved rim, a necked jar and an unusual, pinched neck flagon, similar to Nene Valley prototypes, occur amongst the sandy grey ware sherds (GREY, JUG, cf. Howe et al. 1980, fig. 2.14). A small quantity of native tradition wares and Bourne type shell-gritted wares are also present in this group. Most of the pottery dates to the 2nd century AD, although some of the Nene Valley types may have been produced in the early 3rd century AD.

7.4.79 Ditch 550521 contained 49 sherds ranging in date from AD 150 to sometime in the early 3rd century AD. Of interest is a sooted Mancetter-Hartshill mortarium perhaps reused as a lid for a cooking pot. The range of other sherds include small quantities of samian, Nene Valley grey ware, NVGWC, grey ware, a sherd from a bag-shaped colour-coated beaker, fine grey ware and a sandy white ware sherd possibly from the Verulamium region. Sherds from shell-gritted jars, including a Bourne type necked jar, are also present.

7.4.80 The pottery from ditch 550523 (nine sherds from three vessels), suggests a date in the later 1st to 2nd century AD for this dog-legged feature. Gully 550531 and ditch 550535 contained sherds dating to the 2nd century AD. The sherds from ditch groups 550522 and 550525

suggest mid to late 2nd-century dates for these features, while those from ditch group 550533 belong within the mid-2nd to 3rd century AD. Ditches 550526, 550527, 550532 and 550534 comprise material of later 2nd to 3rd century AD date. A sherd from the base of a jar with a possible post-firing piercing came from ditch 550524. Ditch 550529 produced 108 sherds from a maximum of 50 vessels also of later 2nd to early 3rd century AD date. These include a white ware pinch necked flagon with a possible batch mark 'X', a grey ware narrow necked jar with carbonised deposits that are not typical for vessels of this type (D077), a samian Drag. 31 bowl, a Bourne type shell-gritted bowl with carbonised residues (D078), and small sherds from Dressel 20 amphorae.

7.4.81 Ditch 550536 contained 87 sherds dating to the late 2nd to earlier 3rd century AD. These include the Nene Valley grey ware dish with a resin repair (D068), sherds from a large jar perhaps re-used as a lid (D081) and a necked jar with carbonised residues (D082), as well as a Nene Valley grey colour-coated bowl mimicking samian form 36, fine grey ware and a sherd from a white ware vessel. Grey ware forms present include fresh fragments from a wide-mouthed bowl and a narrow necked jar.

7.4.82 Another large group (231 sherds) of mid-1st to early 2nd century AD date came from ditch 550538. Noteworthy pieces include samian sherds from Drag. 18 platters, and a Drag. 27 cup and a bowl, both with name stamps. Early grey wares (NVGY) are well represented, including sherds from a rusticated jar and a cornice rimmed beaker. Vessels in the early Roman DSSA fabric include cordoned jars, rusticated jars and a necked jar (D65-6). Examples of early Roman D452 type dishes in the GREY fabric (D053 and D060) are also present. A grog-gritted jar with cordoned decoration is also noteworthy (D062). Fine wares include a fine grey ware sherd decorated in the London ware style and a colour-coated roughcast beaker that may have been produced in the mid-2nd century AD. This group is the best early assemblage from Area 55 and shows that the inhabitants had access to a good range of samian in the early Roman period, accompanying the grey wares and native tradition wares that might be expected.

7.4.83 Notable sherds amongst miscellaneous other features include a parchment ware segmental flanged bowl (D074, ditch 550248), a lipped bowl in a Black Burnished ware type fabric (D044, ditch 550050), a Dressel 20 amphora handle that may have been used as a pestle (topsoil), a grog-gritted bowl with a grooved lip (D085, unstratified), and a shell-gritted necked jar with carbonised residues (D075, ditch 550248).

Table 22 Area 55 summary

Area 55 Fabric Summary							
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
SAM	Samian	Undifferentiated	31	1.76%	436	1.05%	167
SAMCG	Samian	Central Gaulish	1	0.06%	166	0.40%	32
SAMEG	Samian	East Gaulish	1	0.06%	55	0.13%	6
DR20	Amphora	Dr 20 amphorae	9	0.51%	1133	2.73%	0
MOMH2	Mortaria	Mancetter-Hartshill mortaria: Meta sediment trits; Leicester fabric MO4	5	0.28%	544	1.31%	55
MORT	Mortaria	Mortaria; undifferentiated	1	0.06%	11	0.03%	2
MOUNV	Mortarium	Light fired Upper Nene Valley	2	0.11%	31	0.07%	4

MOVR	Mortaria	Verulamium region mortaria	9	0.51%	178	0.43%	2
GFIN	Fine	Miscellaneous fine grey wares	9	0.51%	80	0.19%	12
LOND	Fine	London wares	1	0.06%	3	0.01%	0
CC1	Fine	Colour coated fabric 1	59	3.34%	373	0.90%	156
NVGCC	Fine	Nene Valley grey colour-coated ware	2	0.11%	34	0.08%	6
NVMIC	Fine	Nene Valley colour-coated with mica overslip	5	0.28%	228	0.55%	62
BWHGR	Oxidised	Northamptonshire type 'burnt' grog-gritted white ware	3	0.17%	35	0.08%	0
BWHSY	Oxidised	Burnt sandy white ware	1	0.06%	8	0.02%	0
CR	Oxidised	Roman cream wares (various)	76	4.31%	546	1.32%	18
CR?	Oxidised	Roman cream wares	16	0.91%	437	1.05%	98
MICA	Oxidised	Mica-dusted	3	0.17%	31	0.07%	27
OX	Oxidised	Misc. oxidized wares	15	0.85%	118	0.28%	2
OX?	Oxidised	Misc. oxidised wares	7	0.40%	22	0.05%	0
PARC	Oxidised	Parchment; cream painted red; unknown source/s	5	0.28%	84	0.20%	14
VRW?	Oxidised	Verulamium region white ware	2	0.11%	20	0.05%	0
BB1	Reduced	Black burnished 1, unspecified	3	0.17%	20	0.05%	0
BBT	Reduced	Black Burnished type copies	20	1.13%	476	1.15%	94
DSSA	Reduced	Early- mid-Roman sandy ware	46	2.61%	736	1.78%	131
GREY	Reduced	Miscellaneous grey wares	637	36.09%	13938	33.62%	1688
GREY?	Reduced	Miscellaneous grey wares	18	1.02%	240	0.58%	12
GROG	Reduced	Grog-tempered wares	66	3.74%	1916	4.62%	106
GROL	Reduced	Grey sand tempered with calcareous ooliths	3	0.17%	51	0.12%	7
IAGR	Reduced	Native tradition/transitional gritty wares	4	0.23%	41	0.10%	0
IAGR1	Reduced	Iron Age tradition ‘Gritty’: Site fabric 1	68	3.85%	2006	4.84%	115
IAGR2	Reduced	Iron Age tradition ‘Gritty’: Site fabric 2	109	6.18%	4110	9.91%	125
NVGW	Reduced	Nene Valley grey ware	99	5.61%	2524	6.09%	279
NVGWC	Reduced	Nene Valley grey ware coarse sandier	33	1.87%	1460	3.52%	135
NVGY	Reduced	Earlier Nene Valley grey ware	34	1.93%	457	1.10%	81

IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1	5	0.28%	119	0.29%	0
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	104	5.89%	3107	7.50%	71
SLSHB	Calcareous	Bourne shell gritted	245	13.88%	5616	13.55%	541
FCLAY	Fired clay	Fired clay	6	0.34%	50	0.12%	0
CBM?	CBM	Ceramic building material	2	0.11%	14	0.03%	0
Trench 482 Fabric Summary							
SAMCG	Samian	Central Gaulish	2	0.79%	11	0.25%	0
SAMCG?	Samian	Central Gaulish	1	0.39%	28	0.64%	16
CC1	Fine	Colour coated fabric 1	16	6.30%	23	0.52%	27
CR?	Oxidised	Roman cream wares	1	0.39%	5	0.11%	0
OX	Oxidised	Misc. oxidized wares	1	0.39%	8	0.18%	0
GREY	Reduced	Miscellaneous grey wares	134	52.76%	1941	44.03%	380
GREY?	Reduced	Miscellaneous grey wares	2	0.79%	21	0.48%	0
IAGR1	Reduced	Iron Age tradition 'Gritty': Site fabric 1	4	1.57%	54	1.23%	0
IAGR3	Reduced	Iron Age tradition 'Gritty': Site fabric 3	7	2.76%	75	1.70%	9
NARR?	Reduced	Nar Valley wares-reduced	1	0.39%	27	0.61%	0
NVGW	Reduced	Nene Valley grey ware	8	3.15%	577	13.09%	0
NVGW?	Reduced	Nene Valley grey ware	5	1.97%	44	1.00%	14
NVGWC	Reduced	Nene Valley grey ware coarse sandier	3	1.18%	59	1.34%	0
SLGY	Reduced	* South Lincs grey cf NVGY	4	1.57%	15	0.34%	0
DWSHT	Calcareous	Dales ware type	7	2.76%	45	1.02%	0
SHEL?	Calcareous	Shell gritted	1	0.39%	29	0.66%	0
SLSHB	Calcareous	Bourne shell gritted	49	19.29%	1401	31.78%	61
MOD	Post Med+	Modern pottery, undifferentiated	1	0.39%	8	0.18%	0
FCLAY	Fired clay	Fired clay	7	2.76%	37	0.84%	0
Trench 483 Fabric Summary							
DR20	Amphora	Dr 20 amphorae	4	5.13%	44	2.86%	0
CR	Oxidised	Roman cream wares (various)	3	3.85%	21	1.37%	0
GREY	Reduced	Miscellaneous grey wares	3	3.85%	41	2.67%	20
GREY?	Reduced	Miscellaneous grey wares	1	1.28%	4	0.26%	0
IAGR3	Reduced	Iron Age tradition 'Gritty': Site fabric 3	8	10.26%	89	5.79%	16

NVGW	Reduced	Nene Valley grey ware	22	28.21%	262	17.06%	31
NVGWC	Reduced	Nene Valley grey ware coarse sandier	9	11.54%	190	12.37%	0
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	2	2.56%	14	0.91%	0
SLSHB	Calcareous	Bourne shell gritted	26	33.33%	871	56.71%	63
NVGWC	Reduced	Nene Valley grey ware coarse sandier	1	100.00%	18	100.00%	0

Area 55 Form Summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
A	Amphora	Unclassified form	9	0.51%	1133	2.73%	0
BK	Beaker	Unclassified form	10	0.57%	36	0.09%	0
BK120	Beaker	Necked jar/beaker as D&P corpus 1076-1086	15	0.85%	544	1.31%	81
BKBAG	Beaker	Baggy	2	0.11%	40	0.10%	0
BKBR	Beaker	Bead rim	1	0.06%	19	0.05%	14
BKC120	Beaker	Sharp carination as CAM120	8	0.45%	164	0.40%	0
BKCOR	Beaker	Cornice rim	16	0.91%	67	0.16%	76
BKEV	Beaker	Everted rim	9	0.51%	103	0.25%	62
BKFO	Beaker	Folded; indeterminate type	3	0.17%	23	0.06%	0
BKFOC	Beaker	Folded; with curved rim	2	0.11%	17	0.04%	19
BKFOS	Beaker	Folded scaled beaker	1	0.06%	2	0.00%	0
BKRC	Beaker	Roughcast	8	0.45%	23	0.06%	0
38	Bowl	Samian form- see Webster 1996	1	0.06%	55	0.13%	6
B	Bowl	Unclassified form	7	0.40%	222	0.54%	30
B31	Bowl	Imitation samian form 31	6	0.34%	246	0.59%	74
B333	Bowl	Bifid rim as Gillam 301	1	0.06%	124	0.30%	14
B334	Bowl	Carinated jar/bowl (flat cordon as D&P 1157-9)	13	0.74%	170	0.41%	17
B36	Bowl	Copy of Samian form 36	1	0.06%	17	0.04%	6
BBN3	Bowl	Bourne type with single grooved rim as Samuels 1983 fig. 214.61-3	12	0.68%	532	1.28%	81
BCAR	Bowl	Carinated	2	0.11%	67	0.16%	0
BCOR	Bowl	Cordoned	6	0.34%	313	0.76%	38
BFL	Bowl	Flange rimmed (eg Gillam 1970 Types 218-220)	33	1.87%	1273	3.07%	287
BGR	Bowl	With grooved rim	2	0.11%	96	0.23%	24
BNK	Bowl	Necked	1	0.06%	37	0.09%	8

BR12	Bowl	Imitation samian Ritterling 12	1	0.06%	18	0.04%	12
BSEG	Bowl	Segmental Gillam 1970 Nos. 294-5	5	0.28%	93	0.22%	22
BHER	Bowl-large	Hooked everted rim (Rigby & Stead 1976 fig 64.4)	1	0.06%	54	0.13%	4
BWM	Bowl-large	Wide-mouthed; D&P No 1225-30	4	0.23%	102	0.25%	27
BWM1	Bowl-large	Wide-mouthed; D&P No.1225-7	33	1.87%	1353	3.26%	161
BD	Bowl/dish	-	17	0.96%	419	1.01%	22
CLSD	Closed	Form	346	19.60%	7226	17.43%	2
27	Cup	Samian form- see Webster 1996	4	0.23%	30	0.07%	29
33	Cup	Samian form- see Webster 1996	2	0.11%	22	0.05%	27
C	Cup	Unclassified form	2	0.11%	36	0.09%	16
31	Dish	Samian form- see Webster 1996	8	0.45%	360	0.87%	99
35	Dish	Samian form- see Webster 1996	1	0.06%	2	0.00%	6
D	Dish	Unclassified form	4	0.23%	297	0.72%	101
D452	Dish	as Gillam 1970 No. 337 GB Cam 16 copy	11	0.62%	292	0.70%	68
D452V	Dish	Inturned bead rim	2	0.11%	44	0.11%	12
DGR	Dish	Grooved rim	4	0.23%	102	0.25%	11
F	Flagon	Unclassified form	18	1.02%	188	0.45%	0
F?	Flagon	Unclassified form	1	0.06%	4	0.01%	0
FJ	Flagon/jar	Unclassified form	9	0.51%	44	0.11%	0
JUG	Flagon/jug	Pinched neck	13	0.74%	365	0.88%	92
CPN140	Jar	Native tradition - Darling & Jones 1988 fig. 7.55	1	0.06%	153	0.37%	16
J	Jar	Unclassified form	74	4.19%	2270	5.48%	267
J?	Jar	Unclassified form	6	0.34%	62	0.15%	4
J105	Jar	Lid seated; as Rigby and Stead 1976 Roxby form A	13	0.74%	256	0.62%	33
JBIF	Jar	Bifurcated rim	6	0.34%	269	0.65%	53
JBN3	Jar	Bourne type jar no. 3; Bolton 1968 fig. 1.1	94	5.33%	3741	9.02%	427
JCH	Jar	Channel rim- Iron Age type	3	0.17%	64	0.15%	22
JCOR	Jar	Cordoned	26	1.47%	503	1.21%	145
JCR	Jar	Collared rim as Swanpool type C40-1	5	0.28%	185	0.45%	45
JEV	Jar	Everted rim	38	2.15%	1341	3.23%	240
JEVC	Jar	Everted rim- curved as Gillam type 135	26	1.47%	289	0.70%	106

JHER	Jar	Hooked everted rim (Rigby & Stead 1976 fig 64.4)	2	0.11%	53	0.13%	17
JL	Jar	Large	49	2.78%	2957	7.13%	31
JLH	Jar	Lug-handled	13	0.74%	370	0.89%	0
JNK	Jar	Necked	86	4.87%	1711	4.13%	373
JNN	Jar	Narrow-necked	25	1.42%	927	2.24%	283
JRUST	Jar	Rusticated	17	0.96%	167	0.40%	25
JS	Jar	Storage	21	1.19%	1830	4.41%	37
JS52	Jar	Storage (form as Webster 1949 fig 12.48)	8	0.45%	807	1.95%	20
JWM	Jar	Wide-mouthed as RPNV 3-5 (Howe et al 1980)	21	1.19%	442	1.07%	0
JBK	Jar/Beaker	Small jar or beaker	4	0.23%	80	0.19%	0
JBKNK	Jar/Beaker	Necked	2	0.11%	17	0.04%	15
JB	Jar/Bowl	Unclassified form	9	0.51%	319	0.77%	44
JBCAR	Jar/Bowl	Carinated	1	0.06%	10	0.02%	0
JBL	Jar/Bowl	Large	12	0.68%	658	1.59%	9
JBNK	Jar/Bowl	Necked	15	0.85%	226	0.55%	46
L	Lid	Unclassified form	2	0.11%	261	0.63%	75
BX	Misc	Castor box	5	0.28%	27	0.07%	11
CHP	Misc	Cheese press	1	0.06%	103	0.25%	0
ST	Misc	Strainer	3	0.17%	31	0.07%	27
M	Mortaria	Unclassified Form	3	0.17%	140	0.34%	0
MFL	Mortaria	Flange-rimmed as Gillam 1970 No. 246	2	0.11%	31	0.07%	4
MHK	Mortaria	Hook-rimmed as Gillam 1970 Nos. 237-45	9	0.51%	179	0.43%	4
MTRB	Mortarium	With triple ribbed rim	3	0.17%	414	1.00%	55
OPEN	Open	Form	2	0.11%	22	0.05%	0
18	Plate	Samian form- see Webster 1996	5	0.28%	53	0.13%	34
-	Unknown	Form uncertain	498	28.22%	4112	9.92%	32
Trench 482 Form Summary							
BK?	Beaker	Unclassified form	7	700.00%	11	32.35%	0
BK120	Beaker	Necked jar/beaker as D&P corpus 1076-1086	5	500.00%	101	297.06%	0
BKCUR	Beaker	Curve-rimmed form	26	2600.00%	257	755.88%	100
BKEV	Beaker	Everted rim	9	900.00%	13	38.24%	27
BKRC	Beaker	Roughcast	1	100.00%	3	8.82%	0
CLSD	Closed	Form	18	1800.00%	301	885.29%	0
33	Cup	Samian form- see Webster 1996	1	100.00%	28	82.35%	16
D452	Dish	as Gillam 1970 No. 337 GB Cam 16 copy	2	200.00%	54	158.82%	18
DGR	Dish	Grooved rim	9	900.00%	314	923.53%	102
FJ	Flagon/jar	Unclassified form	1	100.00%	7	20.59%	0

J	Jar	Unclassified form	12	1200.00%	194	570.59%	0
JBN3	Jar	Bourne type jar no. 3; Bolton 1968 fig. 1.1	17	1700.00%	498	1464.71%	61
JCUR	Jar	Curved	11	1100.00%	181	532.35%	81
JEVC	Jar	Everted rim- curved as Gillam type 135	16	1600.00%	341	1002.94%	68
JL	Jar	Large	6	600.00%	1096	3223.53%	0
JNK	Jar	Necked	2	200.00%	22	64.71%	14
JBK	Jar/Beaker	Small jar or beaker	2	200.00%	108	317.65%	11
JBL	Jar/Bowl	Large	3	300.00%	179	526.47%	9
JBNK	Jar/Bowl	Necked	1	100.00%	9	26.47%	0
OPEN	Open	Form	1	100.00%	9	26.47%	0
-	Unknown	Form uncertain	104	10400.00%	682	2005.88%	0
Trench 483 Form Summary							
A	Amphora	Unclassified form	4	400.00%	44	129.41%	0
BKFOC	Beaker	Folded; with curved rim	8	800.00%	62	182.35%	15
CLSD	Closed	Form	13	1300.00%	339	997.06%	0
J	Jar	Unclassified form	12	1200.00%	231	679.41%	0
JBN3	Jar	Bourne type jar no. 3; Bolton 1968 fig. 1.1	11	1100.00%	399	1173.53 %	63
JNK	Jar	Necked	6	600.00%	81	238.24%	16
JWM	Jar	Wide-mouthed as RPNV 3-5 (Howe et al 1980)	1	100.00%	107	314.71%	16
JBKNK	Jar/Beaker	Necked	1	100.00%	8	23.53%	20
JBL	Jar/Bowl	Large	5	500.00%	158	464.71%	0
-	Unknown	Form uncertain	17	1700.00%	107	314.71%	0
Trench 484 Form Summary							
-	Unknown	Form uncertain	1	100.00%	18	52.94%	0

Areas 60 and 61

7.4.84 Sixteen sherds (0.331 kg, 0.12 RE, av. 20.1 g/sherd) were recovered from both areas combined. In addition, a single samian sherd (2 g, 0 RE) came from evaluation trench 545 (Wessex Archaeology 2021c; Rowlandson and Fiske 2021b). Small quantities of grey ware, samian and shell-gritted wares were recorded, with many groups being attributed a broad Roman date.

Zone 2 evaluation trench sections

7.4.85 Pottery from the evaluation trenches in Zone 2 which did not overlap with any of the excavation areas is discussed briefly below. Full description of this material is contained in the archive. Material from the earlier evaluation in Zone 3 (site code 218710) has been discussed in a previous report (Wessex Archaeology 2021c; Rowlandson and Fiske 2021b).

Section 16

7.4.86 One sherd (13 g, 0.02 RE) in an Iron Age tradition 'Gritty': Site fabric 1 (IAGR1) was recovered from trench 18 in section 16. The sherd dates to the mid-1st to 2nd century AD.

Section 20

7.4.87 Five sherds (52 g, 0 RE) were recovered from two trenches (109 and 110) in section 20. These comprise four grey ware sherds (GREY; 38 g) and one quartz-gritted handmade sherd (QU; 14 g).

Section 21

7.4.88 One grey ware sherd (97 g, 0 RE) came from trench 323 in section 21.

Section 24

7.4.89 Thirteen sherds (58 g, 0 RE) were recovered from two trenches (124 and 149) in section 24. Small featureless handmade sherds in clay pellet- and flint- tempered fabrics probably of earlier prehistoric date were recovered from trench 149 (22 g and 9 g respectively), along with grey ware and native tradition ware (IAGR) of early Roman date. A single handmade grog-tempered sherd (11 g; IAGROG), possibly of Iron Age date, was retrieved from the subsoil in trench 124.

Section 25

7.4.90 A single tiny quartz-gritted sherd (1 g, 0 RE; fabric QU) of broad prehistoric date came from trench 248 in section 25.

Section 26

7.4.91 Seven sherds (91 g, 0.22 RE) were found in trench 130 in section 26. This small group included a piece from a grey ware (GREY) lipped bowl (11 g) and an oxidised sherd (OX?; 80 g) likely to date to the mid-Roman period

Section 27

7.4.92 Twenty-five sherds (0.292 kg, 0.3 RE) came from two trenches (137 and 252) in section 27. Trench 137 produced a mixed group of Roman pottery from the topsoil, including a grey ware dish with a grooved rim and a shell-gritted Dales ware jar. Two Iron Age shell-gritted sherds were recovered from ditch 13703, and a single grey ware sherd was found in trench 252, layer 25200.

Section 28

7.4.93 Fourteen sherds (0.319 kg, 0.1 RE) were recovered from three trenches (136, 139 and 329) in section 28. Fine Iron Age sherds came from trench 136, while two groups of handmade pottery including Scored ware dating to the Middle to Late Iron Age were recovered from trench 139. A Roman sherd was found in trench 329.

7.5 Post-Roman pottery

7.5.1 This report is based on 512 sherds of pottery weighing 7.210 kg and representing 379 vessels of Anglo-Saxon to early modern type (three of Roman date) and 24 vessels of uncertain date. The recovered assemblages add to our knowledge of post-Roman ceramic consumption in parishes along the scheme.

7.5.2 Much of the material recovered is of medieval date and confirms established views and assumptions of ceramic usage in the areas investigated> However, a new Middle Saxon Maxey-type ware group (MAXEL) with three sub-fabrics was encountered in Area 18, in the parish of Sausthorpe.

7.5.3 The pottery was recovered from a number of sites with the greatest number of vessels being recovered from Areas 28 (36 vessels) and 18 (34 vessels). Few sites produced more than

a small number of vessels and most are represented by small, single, abraded sherds. Few of the 24 vessels recorded as being of uncertain date are likely to prove to be of post-Roman date.

Table 23 Post-Roman pottery summarised by ceramic period with vessel count

Period	Zone 2	Zone 3	Total vessels
Uncertain	24	0	24
ROM	3	0	3
ASAX	8	0	8
MSAX	25	6	31
LSAX	1	0	1
EMED	2	0	2
MED	172	0	172
LMED	43	2	45
PMED	31	16	47
EMOD	14	40	54
Total	*323*	*64*	*387*

Table 24 Post-Roman pottery from Zone 2 summarised by ceramic period and site with vessel count

Intervention	Uncert	Roman	Anglo-Sax	Mid Sax	Late Sax	Early med	Med	Late med	Post-med	Early mod	Total vessels
Area 7	3	0	0	0	0	0	0	0	0	1	4
Area 35	0	0	5	0	0	0	0	0	0	0	5
Area 8	2	0	0	0	0	0	0	0	0	0	2
Area 9	6	3	0	0	0	0	0	0	1	1	11
Area 17	4	0	0	0	0	0	1	0	1	0	6
Area 18	1	0	2	25	0	0	6	0	0	0	34
Area 37	0	0	0	0	0	1	5	0	1	0	7
Area 19	0	0	0	0	0	0	2	0	1	0	3
Area 20	0	0	0	0	0	0	1	0	0	0	1
Area 38	2	0	0	0	0	0	0	0	0	1	3
Area 22	0	0	0	0	1	0	2	0	0	0	3
Area 11	0	0	0	0	0	0	0	0	1	0	1
Area 12	0	0	0	0	0	0	0	0	0	1	1
Area 25	0	0	0	0	0	0	1	0	0	0	1
Area 28	0	0	0	0	0	1	27	3	5	0	36
Area 34	1	0	1	0	0	0	9	1	1	1	14
Area 29	0	0	0	0	0	0	23	2	3	0	28
Area 30	1	0	0	0	0	0	6	1	1	1	10
Area 41	0	0	0	0	0	0	0	0	0	1	1
Area 31	2	0	0	0	0	0	0	0	0	0	2
Trench 35	0	0	0	0	0	0	1	0	0	0	1
Trench 39	0	0	0	0	0	0	1	0	0	0	1
Trench 41	0	0	0	0	0	0	3	1	0	0	4
Trench 47	0	0	0	0	0	0	1	0	0	0	1
Trench 48	0	0	0	0	0	0	1	5	4	0	10
Trench 70	0	0	0	0	0	0	3	0	0	1	4

Trench 108	0	0	0	0	0	0	0	1	0	0	1
Trench 110	0	0	0	0	0	0	2	0	0	0	2
Trench 111	0	0	0	0	0	0	3	1	0	0	4
Trench 113	0	0	0	0	0	0	0	1	0	0	1
Trench 120	1	0	0	0	0	0	4	0	0	0	5
Trench 122	0	0	0	0	0	0	10	1	2	0	13
Trench 123	0	0	0	0	0	0	1	2	0	0	3
Trench 124	0	0	0	0	0	0	3	0	0	0	3
Trench 125	0	0	0	0	0	0	2	3	0	0	5
Trench 126	0	0	0	0	0	0	2	1	0	0	3
Trench 130	0	0	0	0	0	0	2	0	0	0	2
Trench 131	0	0	0	0	0	0	1	1	0	0	2
Trench 132	0	0	0	0	0	0	2	0	0	0	2
Trench 137	1	0	0	0	0	0	2	2	1	1	7
Trench 147	0	0	0	0	0	0	6	0	0	0	6
Trench 148	0	0	0	0	0	0	2	1	0	0	3
Trench 149	0	0	0	0	0	0	1	0	0	0	1
Trench 237	0	0	0	0	0	0	0	1	0	0	1
Trench 239	0	0	0	0	0	0	1	0	0	1	2
Trench 247	0	0	0	0	0	0	1	2	0	0	3
Trench 251	0	0	0	0	0	0	2	1	0	0	3
Trench 252	0	0	0	0	0	0	2	0	0	0	2
Trench 281	0	0	0	0	0	0	2	0	1	1	4
Trench 282	0	0	0	0	0	0	9	1	1	2	13
Trench 283	0	0	0	0	0	0	1	0	0	0	1
Trench 298	0	0	0	0	0	0	2	0	1	1	4
Trench 300	0	0	0	0	0	0	5	0	0	0	5
Trench 322	0	0	0	0	0	0	1	0	0	0	1
Trench 326	0	0	0	0	0	0	3	0	2	0	5
Trench 328	0	0	0	0	0	0	2	0	1	0	3
Trench 329	0	0	0	0	0	0	5	11	3	0	19
Total vessels	*24*	*3*	*8*	*25*	*1*	*2*	*172*	*43*	*31*	*14*	*323*

Table 25 Post-Roman pottery from Zone 3 summarised by ceramic period and site with vessel count

Intervention	Mid Saxon	Late medieval	Post-medieval	Early modern	Totals
Area 52	0	1	0	1	2
Area 54	0	0	0	1	1
Area 55	0	1	2	0	3
Area 57	0	0	2	2	4
Area 60	4	0	1	3	8
Area 61	2	0	1	0	3
Trench 428	0	0	4	15	19
Trench 465	0	0	4	17	21
Trench 466	0	0	1	0	1
Trench 471	0	0	0	1	1
Trench 482	0	0	1	0	1
Totals	*6*	*2*	*16*	*40*	*64*

Methodology and terminology

7.5.4 The pottery was catalogued by ware (common name) and fabric type using mnemonic codenames based on those used for the Lincoln Fabric Type Series (Young et al. 2005). These have been expanded for use in the county (Jennings 2019; available online as part of the Lincolnshire County Council's Archaeological Handbook, sections 13.4 and 13.5). Post-medieval and early modern types were identified visually; earlier fabrics were identified using a x20 binocular microscope. Three new fabrics within one new Middle Saxon ware type were added to the Lincolnshire post-Roman Fabric Type Series.

7.5.5 The assemblage was quantified within each context by ware and, where possible, a fabric type, with four measures: number of sherds, estimated vessel count using sherds obviously belonging to a single vessel, weight and Estimated Vessel Equivalent by percentage of rim present (REVE). Every effort was made to reconstruct potential cross-context joining vessels, with two being found in Zone 3. The ceramic data including attributes such as decoration, condition and usage was entered on a Microsoft Access Database using ceramic codenames (a copy of this in available in the archive). Recording of the assemblage was in accordance with the guidelines laid out in Slowikowski et al. (2001) and the PCRG, SGRP, and MPRG guidelines (2016). Vessel forms were identified using the Medieval Pottery Research Group's guide to the classification of forms (MPRG 1998; 2001).

7.5.6 The pottery types are summarised here by ceramic period, with individual site-based fabric descriptions available in the archive. Forty-two post-Roman ware types, three Roman vessels and 24 vessels of uncertain date were identified (Table 27). The post-Roman wares include local and regionally imported types, with no continental imports being recovered.

Table 26 Post-Roman pottery from Zones 2 and 3 summarised by ware type and ceramic period, with sherd and vessel count

Ceramic Period and Codename	Total sherds Zone 2	Total vessels Zone 2	Total sherds Zone 3	Total vessels Zone 3	Total sherds Zones 2 and 3	Total Vessels Zones 2 and 3
FLINT	1	1	0	0	1	1
INDUS	1	1	0	0	1	1
MISC	1	1	0	0	1	1
RLSAX	2	1	0	0	2	1
RMED	3	3	0	0	3	3
RMSAX	1	1	0	0	1	1
RSN	5	2	0	0	5	2
UHM	24	14	0	0	24	14
Uncertain	*38*	*24*	*0*	*0*	*38*	*24*
R	3	3	0	0	3	3
Roman	*3*	*3*	*0*	*0*	*3*	*3*
ESAXLOC	5	2	0	0	3	2
ESAXSH	17	1	0	0	17	1
ESGS	7	5	0	0	7	5
Anglo-Saxon	*29*	*8*	*0*	*0*	*29*	*8*
IPS	1	1	3	1	4	2
IPST	4	1	2	1	6	2
MAX	5	1	4	3	9	4

MAXEL	42	21	0	0	42	21
MSAXLOC	1	1	0	0	1	1
RMAX	0	0	1	1	1	1
Middle Saxon	*53*	*25*	*10*	*6*	*63*	*31*
WLSS	2	1	0	0	1	1
Late Saxon	*2*	*1*	*0*	*0*	*1*	*1*
DST	7	1	0	0	7	1
EMLOC	1	1	0	0	1	1
Early medieval	*8*	*2*	*0*	*0*	*8*	*2*
BEVO2T	1	1	0	0	1	1
LSWA	1	1	0	0	1	1
MEDLOC	39	33	0	0	39	33
MEDX	1	1	0	0	1	1
TOY	154	136	0	0	154	136
Medieval	*196*	*172*	*0*	*0*	*196*	*172*
BOU	1	1	0	0	1	1
CIST	0	0	1	1	1	1
LMLOC	4	4	0	0	4	4
TB	14	14	0	0	14	14
TOYII	26	24	1	1	27	25
Late medieval	*45*	*43*	*2*	*2*	*47*	*45*
BERTH	3	2	11	3	14	5
BL	3	3	8	8	11	11
GRE	24	22	1	1	25	23
PGE	3	3	0	0	3	3
SLIP	0	0	1	1	1	1
STMO	0	0	1	1	1	1
STSL	1	1	1	1	2	2
TGW	0	0	1	1	1	1
Post-medieval	*34*	*31*	*24*	*16*	*58*	*47*
BL	3	2	0	0	3	2
BS	1	1	0	0	1	1
CREA	1	1	15	12	16	13
ENGS	4	4	0	0	4	4
ENPO	0	0	6	6	6	6
LONS	0	0	1	1	1	1
NCBW	0	0	6	3	6	3
NOTS	1	1	8	3	9	4
PEARL	4	4	7	7	11	11
SWSG	3	1	0	0	3	1
TPW	0	0	5	5	5	5
WHITE	0	0	3	3	3	3
Early modern	*17*	*14*	*51*	*40*	*68*	*54*
Totals	***425***	***323***	***87***	***64***	***512***	***387***

Table 27 Ceramic codenames summarised by ware type with sherd count, vessel count, weight in grams and REVE

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels	Total weight	REVE
BERTH	Brown glazed	1550	1950	14	5	306	17
BEVO2T	Beverley Orange-type	1230	1350	1	1	2	0
BL	Black-glazed wares	1550	1950	14	13	697	0
BOU	Bourne D ware	1350	1650	1	1	9	0
BS	Brown stoneware	1680	1850	1	1	10	0
CIST	Cistercian-type ware	1480	1650	1	1	3	0
CREA	Creamware	1770	1830	16	13	26	2
DST	Developed Stamford ware	1150	1230	7	1	18	0
EMLOC	Local Early Medieval	1150	1230	1	1	11	0
ENGS	Unspecified English	1750	1900	4	4	659	0
ENPO	English Porcelain	1743	2000	6	6	10	1
ESAXLOC	Early Anglo-Saxon Local	450	650	5	2	53	0
ESAXSH	Anglo-Saxon Shell-	450	650	17	1	146	0
ESGS	Early to mid-Anglo-Saxon Greensand quartz tempered	550	800	7	5	27	0
FLINT	Flint-tempered fabrics	0	600	1	1	9	0
GRE	Glazed Red Earthenware	1500	1650	25	23	549	48
INDUS	Industrial ceramic building	0	0	1	1	31	12
IPS	Ipswich-type ware	730	850	4	2	81	0
IPST	Ipswich-type ware	750	850	6	2	177	18
LMLOC	Late Medieval local fabrics	1350	1550	4	4	55	0
LONS	London Stoneware	1670	1800	1	1	54	0
LSWA	Lincoln Glazed ware	1100	1500	1	1	5	0
MAX	Northern Maxey-type ware	680	870	9	4	174	29
MAXEL	East Lindsey-type Maxey	700	850	42	21	324	32
MEDLOC	Medieval local fabrics	1150	1450	39	33	501	49
MEDX	Non Local Medieval	1150	1450	1	1	15	0
MISC	Unidentified types	400	1900	1	1	3	0
MSAXLOC	Local Middle Saxon	700	850	1	1	1	0
NCBW	19th-century Buff ware	1800	1900	6	3	65	0
NOTS	Nottingham stoneware	1690	1900	9	4	173	8
PEARL	Pearlware	1770	1900	11	11	54	12
PGE	Pale Glazed Earthenware	1600	1750	3	3	234	10
R	Roman pottery	40	400	3	3	29	10
RLSAX	Roman or Late Saxon	50	1000	2	1	3	0
RMAX	Southern Maxey-type	650	950	1	1	14	0
RMED	Roman or medieval	40	1500	3	3	41	0
RMSAX	Roman or Middle Saxon	50	1000	1	1	12	0
RSN	Roman or Saxo-Norman	40	1200	5	2	19	0
SLIP	Unidentified slipware	1650	1750	1	1	10	0
STMO	Staffordshire/Bristol	1690	1800	1	1	4	0
STSL	Staffordshire/Bristol	1680	1800	2	2	12	0

SWSG	Staffordshire White Salt-	1700	1770	3	1	2	0
TB	Toynton/Bolingbroke	1450	1750	14	14	352	55
TGW	Tin-glazed ware	1640	1770	1	1	3	0
TOY	Toynton Medieval Ware	1250	1450	154	136	1540	84
TOYII	Toynton Late Medieval	1450	1550	27	25	515	20
TPW	Transfer printed ware	1770	1900	5	5	32	10
UHM	Uncertain Handmade	0	1200	24	14	112	0
WHITE	Modern Whiteware	1850	1900	3	3	11	0
WLSS	Wheel-thrown Late Saxon	900	1030	2	1	17	0
Totals				*512*	*387*	*7210*	*4.17*

The pottery by period

Uncertain

7.5.7 Thirty-eight sherds representing 24 vessels are of uncertain date, all from Zone 2. They include 24 sherds from 14 handmade vessels not immediately diagnostic of any period (UHAM). The majority of sherds are most likely to be of prehistoric or Iron Age date, but three vessels have the potential to be of Anglo-Saxon type and two of Middle Saxon type. A flint-tempered sherd (FLINT) is also most likely to be of prehistoric date, although Anglo-Saxon flint-tempered vessels are known in the county. Six sherds are from five vessels of Roman or post-Roman date (RLSAX, RMED and RMSAX). A small, possibly chalk-tempered vessel may be of industrial type (INDUS). The other sherd is too small and abraded to accurately identify (MISC).

Roman

7.5.8 Three sherds found in Area 9 are of Roman date. One sherd is from a Dales ware jar and two are Roman grey wares. It is recommended that these should be reported on at the next stage by a Roman pottery specialist.

Anglo-Saxon

7.5.9 Twenty-nine sherds representing just eight vessels found in Areas 18, 34 and 35 in Zone 2 are of handmade Anglo-Saxon type. Seventeen sherds are from a single shell-tempered jar (ESAXSH) with incised two-line rising chevron decoration. Shell-tempered Early Saxon pottery is not common in Lincolnshire but has been found in the Sleaford area and in West Lindsey at the Cammeringham cemetery (Gray et al 2021), as well as at Fillingham, associated with Early Saxon vessels (Young 2000). The 5th or 6th-century vessel does have external soot residues, but work by Perry (2009) has shown that a fair proportion of vessels found in some Lincolnshire cemeteries have evidence for use prior to being reused as burial urns. Five sherds from two quartz-tempered vessels of probable fairly local manufacture (ESAXLOC) were recovered from Areas 18 and 34. The sherds are from a large jar or bowl and a jar. The jar has incised vertical and diagonal line decoration and is of 5th or 6th-century date (Area 34), but the jar or bowl cannot be dated to closer than the 5th to 8th centuries. The other five vessels are in Greensand quartz-tempered fabrics (ESGS). No exact vessel forms are discernible and the sherds are undecorated. The type is quite common in Lincolnshire, especially in the north of the county (Vince and Young 1991; 1994; 2009), and is found in groups of 5th to 8th-century date. Four of the vessels were recovered from Area 35 and one from Area 18.

Middle Saxon

7.5.10 Sixty-three sherds representing 31 vessels are of Middle Saxon type (Table 28). The majority of these sherds were recovered from Area 18 (42 sherds) and come from 21 vessels in a newly defined Maxey-type ware group (MAXEL). Addyman first defined shell-

tempered Maxey ware as a Middle Saxon type based on pottery recovered from excavations at Maxey, then in Cambridgeshire, but now in Northamptonshire (Addyman 1964). Subsequent fieldwork showed that this tradition existed over much of Lincolnshire (Addyman and Whitwell 1970), Northamptonshire, Cambridgeshire and Bedfordshire, as well as extending into a few sites in Yorkshire, most notably York (Mainman 1993). A more detailed examination of the fabrics and reassessment of the type (Vince and Young 1991; 1992; 1994; Young et al 2005, 34–37) led to the isolation of two traditions: Southern – tempered with a shelly marl (RMAX), and Northern – tempered with a shelly limestone (MAX). A third grouping (MAXQ), a variant of Northern Maxey-type ware, was later defined at Quarrington, near Sleaford, Lincolnshire (Young 2003). All Maxey-type pottery shares the presence of a dense, fossil shell filler as well as manufacture, basic shapes and rim types, although it cannot be certain that they all follow the same chronological development. Nine sherds of Northern Maxey-type ware (MAX) representing four vessels were recovered from Areas 18, 60 and 61. The five sherds recovered from Area 18 are from a single large cylindrical jar or bowl in Fabric A. Fabric A is the finest of the Northern Maxey-type fabric groupings, and occurs early in the sequence, potentially dating to between the late 7th and early/mid-8th centuries. This highly fired vessel is typically thin-walled and competently manufactured, with the coils being carefully smoothed on the exterior surface and having traces of the diagnostic vertical finger impressions on the inside wall. The delicate rim is neatly cut flat with a tool or knife, leaving a characteristic inner and outer lip to the flat rim. The other three vessels found in Areas 60 and 61 are in the more common Fabric B. Fabric B is the most common grouping to occur throughout the 8th and early 9th centuries. The fabric includes abundant medium-sized fossil shell and vessels are, on the whole, less competently made than those in Fabric A, with thicker walls and more evident coil manufacture. The vessels comprise a medium-sized jar or bowl and two large jars or bowls, one of which has a curved lug and an unusually sharply cut flat topped rim. The two vessels recovered from Area 60 are certainly of 8th-century date, but that found in Area 61 is potentially of 8th to mid-9th-century date. A single sherd of Southern Maxey-type ware (RMAX) was recovered from Area 61. The sherd is from a large jar or bowl and has a potential 8th to mid-9th-century date span.

7.5.11 Forty-two sherds, all recovered from Area 18 in Sausthorpe parish and representing 21 vessels in three fabrics, form a new Maxey-type ware. The type is sufficiently different to classify it as a ware type, rather than as a new fabric within Northern Maxey ware, but until further finds are made any comparisons of dating with the other Maxey-type wares are tentative.

East Lindsey Maxey-type ware (MAXEL)

7.5.12 All the sherds are either completely or almost completely leached, so the fossil shell temper sizes described below rely mainly on measured voids. Three of the five rims recovered are of the neatly cut flat-topped type typically found on MAX Fabric A and early Fabric B vessels, and one is roughly finger-flattened. The other rim is of the rolled type and although this is found on MAX B vessels it is not a common rim type. The bases are all flat and four of the vessels are lugged. The only lug present not purely represented by a hole or rim extension appears to be of triangular shape, whilst the indication of an attachment to the rim also suggests this shape. Where it is possible to determine a vessel shape, a curved profile is indicated.

Fabric 1

7.5.13 The sherds are fired to a dull oxidised or dull oxidised/dark reduced/dull oxidised colour. The fabric contains abundant fine to medium-sized fossil shell voids (mainly of medium size), together with sparse to moderate round to sub-round quartz grains of 0.2 mm to 0.6 mm across and moderate iron-rich grains up to 6 mm, including what is probably slag.

Thirteen sherds representing 11 vessels in this fabric were recovered, including small, medium and large-sized vessels that might either be jars or bowls. One of the large vessels is lugged and the only rim present is finger-flattened. One of the larger vessels has a partially burnished external surface. Suggested date: 8th century.

Fabric 2

7.5.14 The sherds are fired to a dull oxidised/dark reduced/dull oxidised colour. The fabric contains abundant fine to medium-sized fossil shell voids (mainly of medium size), together with common round to sub-round quartz grains of mainly 0.2 mm to 0.6 mm, and moderate iron-rich grains up to 6 mm including what is probably slag. Twenty-six sherds in this fabric were recovered from eight vessels of small, medium and large size. Identifiable are a curved bowl and a large, lugged jar. The two vessels have sharp neatly cut flat-topped rims. Another large, lugged, curved-sided jar or bowl has a cut flattened rim. A less common Maxey-type rim of rolled shape occurs on a large jar or bowl. Suggested date: 8th century.

Fabric 3

7.5.15 The sherds are fired to a light dull oxidised/reduced/light dull oxidised colour. The fabric contains abundant medium to coarse-sized fossil shell voids of mainly medium size together with moderate to common round to sub-round quartz grains of mainly 0.2 mm to 0.6 mm, sparse Greensand quartz grains, occasional fragments of flint, and sparse to moderate iron-rich grains. The inclusions present in this fabric strongly suggest a Lincolnshire Wolds source. The three sherds are from a large lugged jar or bowl and a vessel of uncertain type. The lug appears to be of triangular shape and has been neatly cut flat around the edges. Suggested date: 8th century.

7.5.16 A small, leached shell-tempered sherd found in Area 18 is of Lincolnshire Middle Saxon production (MSAXLOC). These vessels have a less dense shell temper than the Maxey-type wares and do not follow similar vessel or rim shapes. Dating is between the 8th and mid-9th centuries.

7.5.17 Four sherds of Ipswich ware (IPS) from two vessels were recovered from Areas 18 and 60. The single sherd from Area 18 is from a large jar or pitcher in a Group 2 fabric (Blinkhorn 2012, 16). The other three sherds are from a single large jar or pitcher recovered from two deposits (600168 and 600173 – fills of ditches 600247 and 600248) in Area 60. The fabric of this vessel is less distinct and falls between Groups 1 and 2.

7.5.18 Six other sherds from two vessels (IPST) are not easily fitted into Group 1 or Group 2 fabrics as described and may be products of kilns elsewhere. Although Blinkhorn's survey concluded that Ipswich ware was solely made in Ipswich (ibid, 25), a kiln producing Ipswich-type vessels of potential 8th to 10th-century date has been discovered at Wrenningham in Norfolk (Sudds 2016). The four sherds recovered from Area 18 are from a jar or bowl with a simple rounded rim in a heavily micaceous fabric. The other two oxidised sherds found in Area 60 are from a pitcher with a ridged shoulder. None of these vessels can be dated to closer than between the mid-8th and mid-9th centuries.

Table 28 Pottery of Middle Saxon type summarised by ware type with sherd and vessel count (* denotes cross-deposit join)

Codename	Area	Context	Total sherds	Total vessels
IPS	Area 18	180038	1	1
IPS	Area 60	600168*	1	1
IPS	Area 60	600173*	2	1

IPST	Area 18	180458	4	1
IPST	Area 60	600007	2	1
MAX	Area 18	180304	5	1
MAX	Area 60	600018	2	1
MAX	Area 60	600076	1	1
MAX	Area 61	610014	1	1
MAXEL	Area 18	180014	5	3
MAXEL	Area 18	180038	10	8
MAXEL	Area 18	180129	9	3
MAXEL	Area 18	180131	1	1
MAXEL	Area 18	180139	1	1
MAXEL	Area 18	180348	1	1
MAXEL	Area 18	180349	1	1
MAXEL	Area 18	180531	8	1
MAXEL	Area 18	180572	5	1
MAXEL	Area 18	180594	1	1
MSAXLOC	Area 18	180486	1	1
RMAX	Area 61	610110	1	1
Totals			*63*	*32*

Late Saxon

7.5.19 A single Late Saxon vessel was recovered from Area 22. The two sherds are from a small wheel-thrown Late Saxon Shell-tempered jar (WLSS) potentially of late 9th to early 11th-century date.

Early medieval

7.5.20 Eight sherds representing only two vessels are of 'early medieval type'. A sherd from a small jug with a 'splashed-type' glaze found in Area 28 is of mid-12th to mid-13th-century date. The fabric suggests a Lincolnshire, possibly local, source (EMLOC). Seven sherds found in Area 17 are from a Developed Stamford ware jug (DST) of probable mid/late to late 12th-century date.

Medieval

7.5.21 A total of 196 sherds representing 172 vessels are of medieval type (Table 29). These are dominated by Medieval Toynton ware (TOY) with 154 sherds from 136 vessels. Numerous finds of wasters have been recovered from the villages of Toynton All Saints and Toynton St Peters in Lincolnshire but few kilns have been excavated (Healey 1975). The type was widely marketed not only in Lincolnshire but also to other areas both in England and on the continent. At present the earliest kiln to have been excavated producing Medieval Toynton type is Kiln 1 (The Roses), i thought to have been in use during the late 13th and early 14th centuries (Aitken and Hawley 1966, 190-1). Production of pottery continued in the area until the late 16th or early 17th centuries, although medieval-type vessels ceased to be made by the mid-16th century at the latest. Several other production sites are indicated by the presence of medieval Toynton-type (TOY) wasters, for example at Kirkstead, Boston (BOSTTT) and Ingoldmells (Young 2007). It is generally difficult to date small undiagnostic body sherds, although there is a general trend towards higher-fired vessels, especially jugs, from the late 14th century onwards. The majority of vessels recovered from Zones 2 and 3 can only be dated to the period between the late 13th and 15th centuries, although two vessels from trench 110 (Zone 2) appear to be of 14th-century type, whilst a small number of other vessels are attributable to the 14th to 15th or 15th to mid-16th centuries. The majority of sherds recovered are from small, medium or large-sized jugs, only two of which

are decorated. Twenty-four jars of small to medium size, 12 bowls of miniature to large size, two drinking jugs and a pipkin can also be identified. Much of the recovered material is in an abraded to very abraded condition consistent with sherds recovered from plough soils.

7.5.22 A small and very abraded sherd from a jug is probably of Lincoln Glazed Ware Fabric A type (LSWA) and dates to the 13th or 14th centuries.

7.5.23 Thirty-nine sherds from 33 quartz-tempered vessels (MEDLOC) are of potential fairly local, or at least within Lincolnshire, production. With further work, it may be possible to parallel many of these vessels or at least group them into meaningful ware types. The sherds mainly come from a range of jugs, jars or bowls, but a few unusual forms including an oval dripping dish and a small, spouted jar or cup do occur. The single decorated jug has applied vertical iron-rich strips and may be from a kiln producing Toynton-type vessels. Dating of these jugs is variable, with many having too few chronological attributes to date to closer than a wide 13th to 15th or late 12th to 14th century span. A few vessels can be more closely dated, including a jug (early to mid-13th century) and a small jug or jar (late 12th to mid-13th century) found in Area 29 that may prove to be of Alford Manor House Glazed type.

7.5.24 A sherd from a small Beverley 2-type (BEVO2T) jug or jar of 13th-century type may be a Lincolnshire or East Yorkshire product. Trench 281 produced a body sherd from a jar in a fine sandy fabric that suggests it is a regional import from an unknown centre. The jar can only be dated to between the 13th and 15th centuries.

Table 29 Medieval pottery summarised by ware type with sherd and vessel count

Codename	Total sherds Zone 2	Total vessels Zone 2	Total sherds Zone 3	Total vessels Zone 3	Total sherds Zones 2 & 3	Total Vessels Zones 2 & 3
BEVO2T	1	1	0	0	1	1
LSWA	1	1	0	0	1	1
MEDLOC	39	33	0	0	39	33
MEDX	1	1	0	0	1	1
TOY	154	136	0	0	154	136
Totals	*196*	*172*	*0*	*0*	*196*	*172*

Late medieval to early post-medieval

7.5.25 Forty-seven sherds representing 45 vessels are of late medieval to early post-medieval type (Table 30). Twenty-seven Late Medieval Toynton type (TOYII) sherds are from 25 vessels comprising small to large-sized jugs and large-sized bowls. The type was mainly produced at Toynton All Saints in Lincolnshire between the mid-15th and mid-16th centuries but was made at a number of other centres in the county including Bolingbroke, Coningsby and Tattershall. All of the vessels can only be dated to between the mid-15th and mid-16th centuries. The high number of large bowls (eight in total) is common on rural sites in the county. Fourteen sherds, each representing an individual vessel, are from a further eight large bowls, three jars and two small or drinking jugs of Toynton/Bolingbroke type (TB). The type was manufactured from the mid-15th century at the same centres as TOYII but evolves into a post-medieval type after the mid-16th century and continues to be made up to the mid-18th century at Bolingbroke. Most of the vessels pre-date the 17th century with at least two, including an unusual drinking jug of Humberware shape, being of mid-15th to mid-16th-century type.

7.5.26 An abraded sherd from a small jug or jar is a mid-15th to 16th century product of kilns in Bourne, Lincolnshire (BOU). Four sherds are from unidentified Lincolnshire production sites (LMLOC). They come from two jugs, a small bowl and a jug or jar. All date to the 15th or 16th centuries.

7.5.27 The only regional import is a small sherd from a Cistercian ware posset pot of mid/late 15th to 16th-century date. The vessel is either an East Midlands or Yorkshire product.

Table 30 Late medieval pottery summarised by ware type with sherd and vessel count

Codename	Total sherds Zone 2	Total vessels Zone 2	Total sherds Zone 3	Total vessels Zone 3	Total sherds Zones 2 & 3	Total Vessels Zones 2 & 3
BOU	1	1	0	0	1	1
CIST	0	0	1	1	1	1
LMLOC	4	4	0	0	4	4
TB	14	14	0	0	14	
TOYII	26	24	1	1	27	25
Totals	*45*	*43*	*2*	*2*	*47*	*25*

Post-medieval

7.5.28 Fifty-eight sherds representing 47 vessels in nine ware types are of post-medieval type (Table 31). Twenty-five Glazed Red Earthenware sherds (GRE) from 23 vessels were recovered. This earthenware type first appears in mid-16th century deposits in East Anglia and Lincolnshire and reflects Flemish or Dutch influence. It continues to be manufactured well into the 18th century in several counties including Lincolnshire. Production sites in Lincolnshire include Boston, Bolingbroke, Grimsby and Toynton St Peter. Most of the identifiable vessels are large bowls with a small number of jars also occurring. The only unusual vessels are two colanders of mid-16th to 17th-century date. Most vessels can only be generally dated to between the mid-16th and 17th or even 18th centuries, although four vessels of 18th-century type, probably made at Bolingbroke, do occur, as does one mid to late 16th- century jar or bowl that has cracked during firing. Three Pale-glazed Earthenware sherds (PGE), a type often made at the same centres as the GRE vessels, are of varying mid-17th to 18th-century date, with at least two of the bowls likely to have been made at Bolingbroke.

7.5.29 Twenty-five sherds from 17 vessels are black (BL) or brown (BERTH) iron-glazed earthenwares of mid-16th to 18th-century date. The 11 Black-glazed Earthenware vessels include six drinking vessels, three of which are identifiable as cups, and a range of jars or bowls. Most of the vessels are of mid or late 17th to 18th-century date but two jars or bowls are of 18th to 19th-century type. The six Brown-glazed Earthenware vessels comprise two large bowls, a chamber pot, a large jar or bowl and a jug or jar. Most of the vessels are of mid or late 17th to 18th-century date, but the jug or jar is of late 16th to 17th-century type and one of the large bowls is of 18th to 19th-century date.

7.5.30 Two Staffordshire-type Slipware sherds (STSL) are from slip-decorated press-moulded dishes of late 17th to 18th and 18th-century type. One of the dishes is in a fine buff fabric and is embossed. A single Staffordshire-type Mottled ware sherd of late 17th to 18th-century date is from a cup. A sherd from another press-moulded dish in a fine red fabric may be of Yorkshire or Sunderland production (SLIP). The 18th or 19th-century dish has a thick internal white slip with marbled manganese decoration. An abraded and glaze-less small Tin-glazed Earthenware sherd (TGW) is from a closed vessel of 17th or 18th-century date.

Table 31 Post-medieval pottery summarised by ware type with sherd and vessel count

Codename	Total sherds Zone 2	Total vessels Zone 2	Total sherds Zone 3	Total vessels Zone 3	Total sherds Zones 2 & 3	Total Vessels Zones 2 & 3
BERTH	3	2	11	3	14	5
BL	3	3	8	8	11	11
GRE	24	22	1	1	25	23
PGE	3	3	0	0	3	3
SLIP	0	0	1	1	1	1
STMO	0	0	1	1	1	1
STSL	1	1	1	1	2	2
TGW	0	0	1	1	1	1
Totals	*34*	*31*	*24*	*16*	*58*	*47*

Early modern

7.5.31 Sixty-eight sherds representing 54 vessels are of early modern type or date (Table 32). Three Black-glazed Earthenware sherds (BL) are from a large jar and a large jar or bowl of mid/late 18th to mid-20th and late 18th to mid-20th-century date respectively. Most of the sherds come from a range of fine industrially produced earthenware or stoneware industries (CREA, PEARL, SWSG, TPW and White) of 18th to 20th-century date. These vessels are mainly table wares and tea wares, none of which are of particular note. Six English Porcelain sherds (ENPO) are from one open and five small unidentifiable forms.

7.5.32 The six 19th-century Buff ware (NCBW) sherds come from a large oval dish, a bowl and a jar or bowl of 19th to mid-20th-century date. Fifteen stoneware sherds come from ten vessels in three ware types. The earliest of these are four Nottingham Stoneware (NOTS) jars and bowls of 18th-century date. A small Brown Stoneware bowl or dish (BS) is also of 18th-century type. A London Stoneware sherd (LONS) is from a large jar or flagon of 19th to mid-20th-century date. The other four sherds are from three English Stoneware bottles and a large jar or flagon of varying late 18th to mid-20th-century dates.

Table 32 Early modern pottery summarised by ware type with sherd and vessel count

Codename	Total sherds Zone 2	Total vessels Zone 2	Total sherds Zone 3	Total vessels Zone 3	Total sherds Zones 2 & 3	Total Vessels Zones 2 & 3
BL	3	2	0	0	3	2
BS	1	1	0	0	1	1
CREA	1	1	15	12	16	13
ENGS	4	4	0	0	4	4
ENPO	0	0	6	6	6	6
LONS	0	0	1	1	1	1
NCBW	0	0	6	3	6	3
NOTS	1	1	8	3	9	4
PEARL	4	4	7	7	11	11
SWSG	3	1	0	0	3	1
TPW	0	0	5	5	5	5
WHITE	0	0	3	3	3	3
Totals	*17*	*14*	*51*	*40*	*68*	*54*

Site sequences

7.5.33 The post-Roman pottery discussed here was recovered from 42 evaluation trenches and 26 mitigation areas across Zones 2 and 3 (Tables 24 and 25) and is mainly of medieval to late medieval date. Few interventions produced more than ten sherds of pottery, with the largest groups being recovered from Areas 18 (67 sherds representing 34 vessels), 28 (44 sherds representing 36 vessels) and 29 (34 sherds representing 28 vessels). Much of the material was recovered from topsoil and subsoil deposits or upper ditch fills. Full details of the individual site sequences are contained in the archive, with just the larger or otherwise significant groups summarised here.

Area 35

7.5.34 Twenty-one handmade Anglo-Saxon sherds from five vessels were recovered from three deposits in Area 35. With one exception the vessels are represented by single, small, quite abraded sherds covered in concretions. These sherds are all from vessels in Anglo-Saxon Greensand-tempered fabrics (ESGS) typical of those found in Lincolnshire, especially in the north of the county and the Lincolnshire Wolds (Young and Vince 2009). They occur in stratified deposits ranging in date from the 5th to 8th centuries. Single sherds of this type were recovered from postholes 350047 and 350145, the latter a component of four post-structure 350177, with a further two sherds being found in pit 350119 along with 17 sherds from a single decorated Anglo-Saxon Shell-tempered jar (ESAXSH) with external soot deposits. The closest parallel for this jar is one at the Cammeringham Anglo-Saxon cemetery (Gray et al 2021) dating to the 5th or 6th centuries. As with the Cammeringham vessel (urn 5 on the site), the jar is unusual and is not obviously typical of Anglo-Saxon vessels. The mixed, but mainly coarse fossil shell temper is more similar to that typically used for Iron Age and Roman vessels in the local area. As noted above, despite external soot residues favouring a domestic use, work by Perry (2009) has shown that a fair proportion of vessels found in the Lincolnshire cemeteries studied have evidence for use prior to being reused as burial urns.

Area 9

7.5.35 Very little pottery (17 sherds representing 11 vessels) was, however, found associated with the cemetery in Area 9. Only two of the sherds are of evident post-Roman date. Two of the slots dug across trackway 900050 contained pottery, the assemblage from the easternmost slot comprising 15 sherds of mixed Roman and uncertain date (UHM). The handmade sherds are most likely to be of prehistoric date, although one has the potential to be a local Anglo-Saxon or Iron Age quartz-tempered type. Two of the three Roman sherds are abraded grey wares and one is the rim of a Dales ware-type jar. The western slot across the same trackway produced a tiny early modern Pearlware sherd of late 18th to mid-19th-century date. A basal sherd from a large Pale-glazed Earthenware bowl of mid-17th to mid-18th-century date was recovered from gully 900046.

Areas 60 and 61

7.5.36 Fifteen sherds from 12 vessels of Middle Saxon to early modern date were recovered from Areas 60 and 61, but none of the features produced more than two sherds of post-Roman pottery. The Middle Saxon vessels, which include a large Southern Maxey ware jar or bowl (ditch 610138) and two large Northern Maxey ware jars or bowls (one lugged - ditch 600244; gully 610133), suggest 8th-century occupation in the local area, with the presence of Ipswich ware indicating some post-mid-8th-century activity. If the Ipswich and Ipswich-type vessels are contemporary with the Maxey-type ones (MAX and RMAX), and the activity is of a single phase, then the pottery suggests a mid to late 8th-century date. The Ipswich-

type ware (IPST) pitcher sherd (ditch 600245) may be an indicator of some affluence as it was probably intended for wine.

Summary

7.5.37 Overall, the identified post-Roman pottery is dominated by medieval and late medieval Toynton-type vessels, as is to be expected for the area covered by the scheme. However, a number of vessels (39 sherds from 33 vessels) are not in the Toynton tradition although their fabric suggests a Lincolnshire, and quite possibly a fairly local, source. The finds of these vessels are centred in East and West Keal and may indicate unknown local production.

7.5.38 The small but significant Middle Saxon assemblage from Area 18 in the parish of Sausthorpe mainly comprises sherds in a newly defined shell-tempered Maxey-type ware, with the manufacture and rim types strongly suggesting an 8th-century date. A second but much smaller Middle Saxon focus occurs in Areas 60 and 61 in the parish of Donington.

7.5.39 In Area 18, the majority of vessels date to the Middle Saxon period. Forty-two of these sherds from 21 vessels are in the newly defined Maxey-type ware (MAXEL). The fabrics of this East Lindsey Maxey-type suggest that it may have been produced in the Horncastle area. Finds in Horncastle itself suggest local production of a Late Saxon Greyware, Thetford-type and shell-tempered Late Saxon Lincoln types. Dating in this report assumes that the type roughly follows the chronological progressions of Northern Maxey-type ware and that the type is most likely to be confined to the 8th century (Young and Vince 2009).The lack of large, or well-stratified groups, precludes closely dating individual groups, however the presence of a vessel of late 7th to early/mid 8th-century type and two vessels of post-mid-8th century Ipswich type suggest more than a single phase of Middle Saxon activity.

7.5.40 Most of the sherds from Areas 28 and 29 are from vessels of medieval date. The majority are from Medieval Toynton ware or local (MEDLOC) jugs and jars of mainly broad 13th to 15th-century date. The presence of the Toynton vessels indicates post-late 13th-century activity, but two of the more local vessels from Area 29 can be dated to between the late 12th and mid-13th and early to mid-13th centuries, showing that there was also an earlier medieval presence. The latest vessels in the group are of Glazed Red Earthenware (mid-16th to 18th century) and Brown-glazed Earthenware (late 16th to 17th century) type.

7.6 Small finds from the Anglo-Saxon cemetery (Zone 2, Area 9)

Introduction

7.6.1 The objects were examined visually and, where required, with hand lenses (x4, x8 magnification). Basic type identifications such as ‘knife’ or ‘buckle’ were recorded. Broad period dates attributed to the finds are based on known parallels and typologies. Initial object identification, some measurements and preliminary descriptions were entered into an Excel spreadsheet (available in the archive). Recommendations for mineral remains analysis, additional x-radiography and conservation treatment (cleaning/ stabilisation/ reconstruction), as well as illustration, have been considered and, where deemed necessary, noted in the spreadsheet.

7.6.2 The assemblage comprises 251 objects; a detailed breakdown is provided in Table 33. This number is only an approximation as some of the items made of composite materials, for instance some likely to be boxes and pouches, will contain several individual items. A more accurate number will be achieved during the analysis stage.

7.6.3 The objects were recovered from 35 contexts. Apart from five iron objects and one copper alloy brooch from three contexts, as well as one unstratified copper alloy hooked tag, all of which were possibly or probably redeposited from disturbed graves, the remainder was recovered from 22 graves containing 23 inhumation burials.

7.6.4 The presence of mineral preserved organic remains was observed on at least 132 objects, mainly on components of wooden boxes and leather pouches but also on knives with leather sheaths and wooden or horn handles.

7.6.5 Pottery fragments and animal depositions have not been studied as part of this assessment of small finds, but their presence has been noted and they should be considered as part of the deposition and burial rites during the analysis stage.

Table 33 Number of objects per material from the Anglo-Saxon cemetery (Zone 2, Area 9)

Material	Count
Gold/?Glass/?Garnet	2
Silver	1
Silver/?Leather	1
Silver/Wood/?Leather	8
Copper Alloy	81
Copper Alloy/ Iron	2
Copper Alloy/Leather	7
Copper Alloy/Glass/Leather	1
Iron	116
Worked flint	1
Amber	1
Glass	3
Glass/Silver/Leather	1
Stone	6
Coal	4
Ceramic	6
Shell	2
Wood	3
Worked Bone	5
Total	*251*

7.6.6 On the whole, the preservation can be described as fair to poor, with the few items of silver, glass and amber slightly better preserved, while those made of copper alloy and iron were generally more affected by corrosion; objects made of animal bone as well as the two whelk shells had suffered almost total surface loss. The remains preliminarily identified as leather, horn and wood were exclusively preserved by chemical processes of mineral replacement through contact with the corrosion products of metal finds and are therefore not included in

the quantifications presented in Table 33 above. Arranged by function groups (Table 34), the following discussion provides a brief summary of the range of objects recovered from the graves.

Table 34 Number of objects per function group

Function Group	Count
Jewellery/dress accessories	35
Personal equipment	68
Tools	14
Weaponry	2
Vessel/grave furnishing	37
Fitting	38
Uncertain	57
Total	*251*

The assemblage

Jewellery and dress accessories

7.6.7 Of the 35 items recorded as jewellery and dress accessories, the largest individual object type is made up of 15 buckles, which were recovered from 11 graves; one additional buckle is grouped under personal equipment as it might have been part of a pouch placed well below the feet of the burial in grave 900114. Eight buckles were made of copper alloy, a ninth copper alloy buckle had an iron pin (possibly a repair), and six were entirely made of iron. The chronological range covered by the buckles spans the 5th to possibly as late as the mid-8th centuries, although the emphasis is clearly on the later 6th to 7th century (Marzinzik 2003). While most buckles have plain folded plates, three share a decorative element of cross-hatching arranged in bands (x2) or as a chequer-board alternating with plain fields. This is a rare decoration which can, however, be found locally at the Castledyke South cemetery, Barton-upon-Humber, as well as Polhill (Kent) and at the back of an otherwise more ornate buckle plate from Pewsey (Wiltshire).

7.6.8 The six brooches comprise three annular and three penannular examples; no bow brooches were recovered. The brooches belong to forms of the 6th and 7th centuries (Høilund Nielsen 2013, 223). While five brooches were found with female (including probably and possibly female) burials, generally in the upper chest area, one annular brooch was a stray find from just beyond the north-east corner of the male burial in grave 900190. An additional hoop of an annular brooch was found as part of the chatelaine in grave 900161.

7.6.9 Two graves included a total of four pendants. The richest array came from double inhumation grave 900019, which contained two small gold pendants set with garnet or red glass. Additionally, the grave yielded a delicate pendant made of a silver back plate with two silver bands holding a hemispherical shell of uncertain (?organic) material. Rather than simply decorative, this form of arrangement could also hint at an amuletic purpose of the pendant. A much-corroded semi-circular antler disc with copper alloy slip knot ring was found in grave 900161. Again, the date ranges for comparative finds cover the 6th and 7th centuries.

7.6.10 Only two glass beads were found, in grave 900019, both doughnut-shaped translucent light blue/turquoise, indicating a date range between the late 6th and late 7th century. A most unusual jewel was made of brown glass decorated with a cross-and-saltire pattern of yellow S-twisted trails and mounted onto a probably silver baseplate, held with a crenellated rim. The mount was placed onto leather and found below the head of the female burial in grave

900175. Further analysis is needed to decide whether this arrangement was part of a head band/cap or a pouch placed below the head. Grave 900187 contained a large amber bead.

7.6.11 A pair of copper alloy pins joined by a chain of S-shaped links was found in grave 900085. Linked pins are indicative of a 7th-century date. Pairs of strap ends or lace tags were also found in graves 900070 and 900085, the former possibly used as shoe laces and datable to the mid- to later 7th century, the latter more generally to the 7th. Grave 900085 also contained half of an iron finger-ring which is of a Roman form, ranging in date from the 1st century BC to the 2nd century AD.

Personal equipment

7.6.12 The 69 items of personal equipment are dominated by 18 knives. Most belong to Böhner's type C, a form which spans the later 6th and 7th centuries (Böhner 1958). Three knives, found in graves 900140, 900187 and 900190, belong to type A, thus roughly covering the 5th to 7th centuries. Almost all knives were found with mineral replaced organic remains of their leather sheaths, and handles made of wood or horn, the handles frequently extending beyond the tang onto the blade, often covering both choil and shoulder.

7.6.13 Possible pouches or bags in graves 900070 and 900137 were indicated by strap loops, clasps, staples and studs, often with mineral preserved organic remains of leather and/or wood. The clasps from grave 900070 suggest a date in the latter half of the 7th century. A hooked tag, of a form probably attributable to a use on pouches/bags and datable to the mid-6th to mid-7th centuries, was recorded as a stray find. The above-mentioned buckle placed below the feet of the burial in grave 900114 could well be associated with another pouch or bag; it was found in close proximity to the remains of at least one, possibly two composite bone and antler combs of 7th–8th-century form.

7.6.14 Two further combs were found in grave 900137, including a double-sided composite comb, datable to the late 5th to 8th century, as well as a single-sided hump-backed comb, dating to between the late 7th and 8th, possibly even 9th century.

7.6.15 Implements variously described as choppers, firesteels or pursemounts were found in graves 900137 and 900161. Both are of forms datable to the late 6th and 7th century.

7.6.16 Grave 900161 contained a copper alloy chatelaine which included a chain junction plate, two rings as well as the hoop of an annular brooch and a translucent clear white bead, probably of glass. Chatelaines were common during the 6th and 7th centuries.

7.6.17 An iron spoon was found in grave 900098; such spoons are dated to the second half of the 7th and early 8th centuries. Their distribution is focussed on Kent, with occasional finds in East Anglia and the elsewhere in the east of England.

Tools

7.6.18 Nine spindle whorls were recovered from five graves (900079, 900085, 900137 900161 900175); six were made of ceramic (indicated as 'Ceramic' in Table 33 above), mainly a reduced grey ware, two were made of stone and one of worked bone. All belong to forms common during the 6th and 7th centuries. Along with the whorls, two graves (900085 and 900161) also contained small copper alloy spindle hooks.

7.6.19 Whetstones were found in graves 900098 and 900172, and a fragmented lump of quartzitic stone with curved convex profile which might have been used as a smoothing stone.

Weaponry

7.6.20 Two items were recovered from two graves. The dimensions of the large knife from grave 900098 identify it as a mid-6th-century form of a short, narrow seax. A ferrule with tubular socket was found in grave 900196. Such ferrules are associated with spears, but since no spearhead was found in the grave, it might have acted as a '*pars pro toto*' deposition.

Vessels/grave furnishings

7.6.21 The attribution of objects to this and the following category (fittings) is currently somewhat arbitrary as it is dependent upon whether the function of an item is understood. Individual fittings like a nail, clip or staple can, if found in in an undisturbed functional association, be identified as part of, for instance, a box or a bucket. Further examination of the excavation record and documentation, as well as the analysis results of mineral preserved organic remains, will probably lead to as-yet unexplained fittings being moved to this category.

7.6.22 There are currently 37 items in this category from ten graves (900060, 900063, 900070, 900085, 900114, 900131, 900161, 900175, 900193, 900196). Elements of probable stave-built vessels like buckets or stoups were found in graves 900060, 900063, 900070, 900131. An iron handle came from grave 900114, but there were no elements of a vessel body, although this could, however, have been made of non-preserved organic materials.

7.6.23 Twenty-four items from grave 900085 are attributed to this category, including various strips, brackets, hinges and looped pins which are likely to have been part of a box placed next to the lower right leg of the adult, possible female, burial.

7.6.24 A basal fragment, probably belonging to a late-6th—7th-century palm cup made of translucent turquoise glass, was found in grave 900161. Again, the deposition of a fragmented item could be indicative of the '*pars pro toto*' rite.

7.6.25 Patches and clips, which could have been used for the repair of leather- or turned wooden vessels, were found in graves 900161, 900175, 900193 and 900196.

Fittings

7.6.26 A total of 38 fittings, including brackets, staples, repair clips and nails were found in graves 900060, 900085, 900161, 900172, 900175, 900187, 900193 and 900196. As mentioned above, further – especially chronological – analysis should clarify the function of a large number of these objects.

7.6.27 Individual nails were found in graves 900060 and 900175. Although a structural or functional use cannot be discounted, the deposition of individual nails might have an alternative explanation in their use as apotropaic objects (see e.g., Schuster 2011, 115–6).

Uncertain

7.6.28 Among the items of as yet unidentified function are two composite objects made of silver and leather from grave 900085, one comprising two silver half-loops joined by a copper alloy rivet which holds a leather washer. The same grave also contained a strip loop with overlapping, originally rivetted ends, with two smaller strip loops attached at opposing sides of the larger.

7.6.29 Two adult whelk shells found in female grave 900161 may have had amuletic significance. One other example has been recorded, at Castledyke, South Humberside, and it has been suggested that such shells were perhaps used as locally available substitutes for the far rarer, imported cowrie shells, although other more prosaic uses (as food items or as raw

material to provide decorative white inlays, for example) are also possible (Geake 1997, 99). Four small lumps of coal as well as a small pebble were also found in this grave; as neither material is part of the immediate geological environs of the site, their inclusion in the grave could be intentional.

7.6.30 Grave 900172 contained an iron fragment of a tangential disc section with a slightly raised edge.

7.6.31 A small broken flint blade from grave 900070 could be a residual find related to the prehistoric activity at the site.

Chronology

7.6.32 The initial assessment suggests that the main chronological focus of the assemblage ranges from the later 6th to the later 7th century, but probably continuing at least into the early 8th. There are, however, objects that have possibly or probably been considerably older at the time of deposition, in particular a broken prehistoric flint blade in grave 900070 and a Roman iron finger-ring in grave 900085. While either of these objects might be accidental stray finds, a deliberate inclusion of old and even outright antiquated objects is not unknown in Anglo-Saxon burials (see e.g., White 1988). Regarding some of the burials that had been provided with nothing more than a knife and/or a single belt buckle, it is not impossible to consider a date as late as the earlier 8th century.

7.7 Metalwork from other parts of Zones 2 and 3

7.7.1 The remaining metalwork amounts to 130 items (7261 g), recovered from 69 deposits and as unstratified items. The group is dominated by iron (102 items), with smaller amounts of lead alloy (17) and copper alloy (11); all the objects are highly fragmented and are in a generally poor condition. Although x-radiographed prior to being assessed, the condition of the objects has hampered identification and dating.

7.7.2 Metal objects were found in Areas 5, 8, 11, 12, 18, 29, 31 and 40 in Zone 2 and Areas 53, 54, 55, 58 and 60 in Zone 3. The largest quantities came from Area 18 (41 iron, 13 lead and 4 copper alloy) and Area 55 (22 iron, 1 lead and 4 copper alloy); between one and nine items each were recovered in all other Areas. The majority are from linear features (74%), with smaller amounts from ponds (4%), trackways (4%) and pits (3%); a further 10% are unstratified, while the remaining 5% are from postholes, quarry, hedgerow, bioturbation and other features.

Zone 2

7.7.3 Of the nine iron items from Area 5, only a horseshoe nail from quarry pit 500036 is datable, being a ‘fiddle key’ type of medieval date (Goodall 2011, 364, fig. 13.1). A horseshoe from ditch 500099 is not intrinsically datable, but would not be out of place in the 13th and 14th centuries AD (ibid., 271, fig. 13.4). A tapered iron sheet item from natural feature 500025 might be a medieval buckle plate, but it is too corroded to identify with confidence. Other items comprise a large nail and undiagnostic scraps.

7.7.4 Five of the six iron items from Area 8 are hand-made nail or nail fragments with square shanks and round heads, a form which is not closely datable. The other is an undiagnostic scrap.

7.7.5 Few of the items from Area 18 are datable and the majority are fragments of sheet, bar, nails, fittings and undiagnostic pieces. Lead alloy metalworking waste came from ditches 180619 and posthole 180193, a component of oval posthole structure 180200. Part of a

possible lead alloy window came, usually from decorative windows in churches or manor houses of medieval and post-medieval date, was recovered from ditch 180615. A small iron knife with a curving top edge and a narrow blade came from ditch 180069. It is possibly a whittle-tang type with a concave back of broadly medieval date (Goodall 2011, 106, fig. 8.2, J).

7.7.6 Two nails were recovered from furrow 110008 in Area 11; one is a 'fiddle-key' type from a medieval horseshoe.

7.7.7 The four iron items from Area 12 comprise fragments of rod and bar, but their function and date remain unknown.

7.7.8 A copper alloy button of 18th-century AD date (Hume 1969, 90) came from ditch 290049 in Area 29. It is a flat disc type with an integral attachment loop; the front has a white metal (silver or tin) coating. Fragments from an iron nail (ditch 290051), an iron horseshoe and a lead bar (ditch 290049), and an iron strip (subsoil 290002) make up the rest of this group.

7.7.9 Just three metal items came from the topsoil of Area 40, two of iron and one of lead alloy. All are undiagnostic and undatable.

7.7.10 Two undiagnostic iron rod fragments came from ditch 310172 in Area 31. A possible copper alloy bead (ON 310001), measuring just 3 mm in diameter, came from prehistoric occupation layer 310012. The bead is unusual and the possibility of it being intrusive cannot be ruled out.

Zone 3

7.7.11 Four iron fragments from nails, rod and sheets came from the topsoil of Area 53; all remain undated. Other metal objects comprise a lead alloy strip from ditch 530069, a nail from ditch 530298 and an undiagnostic fragment from ditch 530301.

7.7.12 Just one metal item was found in Area 54, a complete horseshoe of uncertain date from ditch 540031.

7.7.13 The earliest items from Area 55 are Romano-British and comprise two copper alloy brooches and a coin. The coin (ON 550001) came from ditch 550535 and is a *sestertius* of uncertain issuer, but of broad 1st to 3rd century AD date. A bow brooch (ON 550020) from ditch 550529 is in particularly poor condition but is possibly a Hod Hill type of 1st-century AD date. A circular disc brooch (ON 550012, ditch 550518) is of 2nd-century AD date. Corrosion from the iron pin has obscured most of the plate but the front appears to have a series of repeating chevrons around a central pellet. The poor condition of this brooch also means that it is unclear whether the plate was originally enamelled.

7.7.14 Other tentatively dated items include a broadly rectangular iron fitting with a rounded terminal (ditch 550527). It is reminiscent of early medieval strap ends but this identification is tentative given the heavy corrosion obscuring the item. An iron post-medieval or modern implement, probably for agricultural use, came from the topsoil. The remaining objects comprise horseshoes (eight fragments from pond 550022, ditch 550097 and ditch 550483), and structural items like nails, bars and fittings which cannot be closely dated.

7.7.15 Just one iron nail shank came from ditch 580003 in Area 58.

7.7.16 Three items came from Area 60, an 'other metal' post-medieval button from ditch 600250 and undated iron chain links and an iron nail or bolt from ditch 600243.

7.8 Slag

7.8.1 The assemblage of possible metalworking debris from Zones 2 and 3 amounts to just 1355 g, recovered from 29 contexts, only one of which produced more than 500 g, and only one of the remainder more than 100 g (Table 35). The slag is thinly spread, the only concentration being in Area 8 where a Romano-British date is indicated. However, at most this indicates only a low level of ironworking, probably smithing, and is unexceptional in this context.

7.8.2 The overall weight includes 974 g of certain or probable ironworking slag (from seven contexts), all of it fragmentary, most of it somewhat abraded, and the majority quite vesicular – with very few denser pieces present. The material is undiagnostic in terms of its origin (whether smelting or smithing is unclear, though the latter is most likely). There is also 355 g of fuel ash slag (from 20 contexts), all of it very fragmentary and vesicular, which may not derive from metalworking (it could, for example, result from other high temperature processes, or an intense domestic fire). Finally, there are two pieces (26 g) of hearth lining, possibly from an iron smithing hearth.

7.8.3 Of the ironworking slag, 802 g comes from three Romano-British contexts, 17 g from a single prehistoric context, and the remaining 155 g from four undated contexts. Of the fuel ash slag, 139 g comes from four Romano-British contexts, 29 g from two prehistoric contexts, 6 g from a single medieval context, and the remaining 181 g from 13 undated contexts. The hearth lining is from undated contexts.

7.8.4 The majority of debris (922 g) comes from features (Romano-British where datable) in Area 8 and includes the largest quantity of slag (628 g) from one feature. This material is notably vesicular; a single piece of hearth lining also came from Area 8. The two contexts that produced slag (174 g) in Area 18 are also dated to the Romano-British period.

Table 35 Tabulated slag data by area (north to south)

Area	Context	Feature type	Material	Wt (g)	Prov. date
35	350020	Posthole (PH)	FAS	4	Prehistoric
35	350171	PH	FAS	4	-
8	800026	Pit	Slag	11	-
8	800059	PH	FAS	2	-
8	800084	PH	FAS	25	-
8	800090	PH	FAS	29	-
8	800092	PH	FAS	18	-
8	800153	Pit	FAS	26	RB
8	800166	Gully	FAS	35	-
8	800176	Pit	FAS	6	-
8	800177	Pit	FAS	5	-
8	800214	Posthole	FAS	1	-
8	800278	Ditch	Slag	628	RB
8	800316	Pit	FAS	99	RB
8	800390	Ditch	FAS	11	RB
8	800412	Gully	FAS	1	RB
8	800432	Gully	FAS	16	-
8	800436	Gully	Hearth lining	9	-
18	180129	Ditch	Slag	89	RB

18	180169	Ditch	Slag	85	RB
21	218715	Ditch	Slag Hearth lining	108 17	-
38	380011	Ditch	FAS	8	-
38	380112	Gully	Slag	19	-
22	220004	Ditch	Slag	17	Prehistoric
22	220006	Ditch	FAS	25	Prehistoric
34	340008	?	FAS	10	-
34	340110	Layer	FAS	6	Medieval
WB	3062	Pit	FAS	22	-
Evaluation	6601	Subsoil	Slag	17	-

KEY: FAS – Fuel ash slag

7.9 Fired clay

7.9.1 The assemblage from Zones 2 and 3 consists of 5991 pieces (69,121 g), recovered from 133 contexts in 95 features/feature groups (26 of which contain more than 200 g). A small quantity (36 pieces/191 g) from the evaluation phase (trenches 41 and 46) comprises only abraded, featureless fragments. The majority (5955 pieces/68,930 g) was recovered from 17 areas of excavation in the mitigation phase, with the largest groups (more than 1 kg) from Areas 8, 40, 52, 53 and 55. The composition of the collections from the individual areas are summarised below.

7.9.2 A slightly sandy fabric with ferruginous pellets and variable levels of organic matter predominates in Zone 3 areas. Most pieces are extremely friable due to the large quantities of organic matter and poor wedging of the fabric. Variable firing is evident, with orange/red and buff/brown the most common colours. The fabrics from Zone 2 are broadly comparable but are generally sandier and have less organic matter.

7.9.3 Portable objects are limited to a slingshot, one reliably identified and five more tentative perforated triangular objects, all of Iron Age or Romano-British date, two loomweights of probable Anglo-Saxon date and two spherical oval pebbles. Over three quarters of the assemblage by count (almost half by weight) consists of abraded, featureless fragments. Some pieces have flattish surfaces and are probably derived from the linings of ovens or hearths. Various fragments also exhibit withy impressions, indicating the use of light, wooden frameworks to support the structure(s) during construction and initial drying/firing. The material from Areas 7, 8, 11, 25, 34, 30, 41 and 31 was all featureless, with nothing diagnostic recovered. However, the more diagnostic pieces recovered from Areas 52, 53, 54, 55 and 59 at the southern end of the scheme provide consistent evidence of salt production.

Area 18

7.9.4 The fragments from the two loomweights of probable Anglo-Saxon date were recovered from ditches 180141 and 180619. Three key types of circular clay loomweights (annular, bun-shaped, and intermediate between the two) have been recovered in large numbers from early, middle and late Anglo-Saxon settlements such as Flixborough (Loveluck 1998, 156–157; Walton Rogers 1997, 1753). The examples here, however, are too poorly preserved to determine their overall shape and type.

Area 22

7.9.5 A small hand-squeezed object recovered from ditch 220114 is a possible pinch prop, used as a ‘packing’ piece to support briquetage containers. However, this is the only identifiable

object which could be directly related to saltmaking activity from Zone 2 (that is, to the north of the fenland).

Area 28

7.9.6 Part (five fragments, three conjoining) of a probable oval slingshot were recovered from furrow 280006. Slingshots like this were potentially used for hunting small game, such as birds (Poole 1984, 398).

Area 40

7.9.7 Part of a perforated triangular object (four pieces, three conjoining) was found in ditch 400548. Fragments from two further possible examples were also recovered from layer 400405 and ditch 400554, but their poor condition means the identification remains tentative. Perforated triangular objects are a well-known form, common in Iron Age contexts and remaining current well into the 2nd century AD (Wild 2002, 10). Traditionally, they have been interpreted as loomweights used in textile weaving, but it is now considered more likely they were bricks associated with ovens, hearths and/or kilns, perhaps used as linings or pedestals (Lowther 1935; Poole 1995; 2015). A kiln at Newton on Trent includes several fragments of such triangular objects used as kiln furniture (Field and Palmer-Brown 1991, 49).

Areas 52, 53, 54, 55 and 59

7.9.8 The more diagnostic pieces recovered from these five areas at the southern end of the scheme provide consistent evidence of salt production. The majority was retrieved from Area 53 which, at just over 57 kg, represents 84% of the overall fired clay assemblage. The largest concentrations (more than 1 kg) in this excavation area are from five pits (530209, 530212, 530234, 530238 and 530257) and ditch 530296. Patches of salt colours (pink/lilac) and a white coating are common on pieces throughout these groups. The white coating or 'skin' is often seen on salt vessels, resulting from soluble salts being drawn to the surface during the drying process (Lane and Morris 2001, 41). The presence of such deposits on objects might be an indication of repeated use and the intensity of saltmaking (ibid, 112).

7.9.9 Most of the diagnostic pieces derive from hand-squeezed briquetage objects, which were found in all five areas. These objects, though irregular/roughly formed, have distinct form groups/subdivisions. Cylindrical objects with round/oval ends and frequently a lip (at one or both ends) are the most prominent category. Measurements of complete examples cover a wide range (length 35–80 mm; diameter 20–50 mm), but clusters are evident at either end of this range. Strong parallels are apparent with the early Romano-British clip/spacer and pedestal types in the Morton Fen Saltern assemblage (Lane and Morris 2001, 114–15, types CL1, CL2, PD2). The classification of such pieces is not clearcut, with some pedestal supports and cylindrical clips more or less identical in form and size (ibid, 114 and 123–4). Cylindrical objects with an angled end, however, are more likely to be pedestals (e.g., ibid, 115, type PD3).

7.9.10 Half-cylindrical hand-squeezed objects are also present in large quantities, often with one flattened end (10–20 mm wide), as seen in pits 530209, 530212 and 530234. Parallels have not been located for these so far, but they are also likely to be clips/spacers or stabilisers. Further clips/spacers are very variable in form; identifiable types include probable 'bridge' examples (ditch 530296 and pit 520027) and others with 'pinched'/triangular sectioned ends (ditches 520094 and 530296). The differentiation between small round clips/spacers and disc pedestals is also difficult, although two more unusual 'domed' examples (pond 530220 and ditch 550533) are more likely to be the former. More tentative identifications comprise small pinch props/clips (pit 530234) and a fragment of a 'brick' clip (pit 530209).

7.9.11 Larger/more substantial pedestals or supports are limited in number. This may be down to poor preservation but could also be partly chronological. An almost intact 'horned' pyramidal pedestal (ditch 530296, slot 530247) parallels well with examples found in the Middle/Late Iron Age assemblage at Market Deeping (Lane and Morris 2001, 260, nos 12–16). A second semi-complete 'horned' pedestal is also present in pit 530257. Sizeable fragments (several bases and a near-complete side from ditch 530296 are very likely to have originated from further pyramidal pedestals. Pieces of large, roughly cylindrical (diameter range 45–100 mm) pedestals (pit 530234 and ditch 530296) are also present. Some of these have flaring edges, also seen on pedestal bases found at Billingborough (Bacon 2001, 64, fig. 33, no 71). What appears to be a tapering rectangular pedestal was found in pit 530234. Equally, however, it could be a tapering brick which is very similar in form (see Lane and Morris 2001, 363, PD8 and ibid, 120−21, nos 37−39).

7.9.12 The remaining briquetage objects are more tentatively identified. Several pieces of perforated objects (ditch 530296) survive. These could originate from rods (Lane and Morris 2001, 198, no 17) or perforated pyramidal pedestals (Ibid, 260, no 13). A series of corner fragments (pit 530234 and ditch 530296) are potentially from firebars/bricks but could also be the edges of further pedestals. Small triangular objects (pits 530209 and 530234) are likely to be wedges or props (for comparable examples see Poole 2012, 27, nos 32–34). Finally, pieces of probable plates/discs were identified in pits 520020, 520027, 530202 and 530238, as well as ditches 530296 and 550538. These fragments, with two parallel flat surfaces, are mostly relatively thin (15–20 mm) but there is one thicker example (30 mm). Two examples also have concave edges creating a 'pulley' appearance.

7.9.13 Structural fragments, probably primarily pieces of hearth floor, were recovered from ditches 530296 and 550538, and pits 520080, 530209, 530234, 530238 and 530257. Most of these pieces have one or more flattish surface and are of a substantial thickness (up to 85 mm). A few fragments have impressions on the underside, suggesting the use of a light, wooden framework to support the structure. Patches of salt colours (pink/lilac) and white residue, mainly on the top surface, remain common.

7.9.14 Evidence for briquetage containers occurs in ditches 530296 and 550537, pits 530209, 530234, 530238 and 530257, and pond 550022). The fabric is broadly comparable with that of the briquetage objects, but its firing is slightly different (generally lighter, buff/brown surfaces) and the organic temper appears burnt/carbonised in some cases. Despite the large number of pieces (478 sherds), diagnostic fragments are severely limited. Four rounded rim fragments were found in ditch 530286, two of which appear to have fabric 'layered' over the edge (possibly a form of luting).

7.9.15 A few objects have more tentative links with the saltmaking activity. Two unusual oval spherical fired clay 'pebbles' (one from ditch 530301) are of unknown purpose. Briquetage at Morten Fen includes fragments of fired clay spheres (Lane and Morris 2001, 117 and 121, fig. 35, no 50), possibly used as weights or sinkers for determining the depth of brine in tanks. These examples, however, are perforated for suspension and it is difficult to envisage a solid object, with a string wrapped around it, working in the same manner. However, a further solid fired clay sphere of comparable size was recently recovered alongside briquetage objects at Heckington Fen (Wessex Archaeology 2022b). Several fragments of triangular perforated objects (ditches 530270, 550520 and 550527 are also present. One example (ditch 530270) has prominent patches of salt colours and white residue on the surface, suggesting links with salt production.

7.10 Clay tobacco pipe

7.10.1 A total of only 11 fragments were recovered, all plain stem fragments. Of these, four pieces derive from modern/post-medieval features in excavation areas in Zone 2 (Areas 35, 19, 22 and 12), a single piece from each of two land drains, a ditch, and a pit. One piece was recovered from each of evaluation trenches 322 and 329, the former from the topsoil and the latter the solitary find in a post-medieval ditch. A further five pieces were collected from Areas 55 and 60 in Zone 3, all of which were found in ditches of modern/post-medieval date.

7.10.2 Clay pipes have been produced from the late 16th century to the modern period, but none here retain features enabling a refined chronology, and can therefore only be attributed a broad post-medieval date.

7.11 Stone

7.11.1 A total of 63 pieces of stone were recovered, 51 collected from Zone 2, and 12 from Zone 3. However, 41 of these objects show no clear sign of being worked or utilised. Some exhibit flat or polished surface regions, probably resulting from natural weathering but they may have been collected on the suspicion that they are 'non-local' material. No detailed geological identifications have been undertaken at this stage, but a notable variety of rock types are present amongst these pieces, including igneous rocks as well as ironstone and ironpan fragments, fossiliferous limestone and fine- to coarse-grained sandstones, some micaceous. This range, together with their exotic appearance and surface weathering, probably reflects the presence of material moved and eroded by glacial action and which forms a component of local superficial till geology. Two pieces are fossil brachiopods derived from limestone deposits to the west of the region and, again, are probably present as a result of glacial/fluvial redeposition.

7.11.2 Sixteen pieces of worked/utilised stone were found in Zone 2. These include a broken, burnt and water-worn sandstone pebble (ditch 700300 in Area 7), which shows signs of use as a rubber/pounder. The date of this object is uncertain, but it was found in association with almost 300 g of Iron Age pottery. A small, broken piece (14 g) of an unidentified stone (ON 900141) was recovered from Anglo-Saxon inhumation grave 900196 in Area 9. This is of uncertain use but shows convincing signs of having been artificially shaped.

7.11.3 Five featureless fragments of Mayen lava stone, recovered from ditch 180619 in Area 18, are almost certainly derived from a quern stone of Roman date. Two flat fragments of jet, a material found in the region of Whitby some 150 km to the north, were recovered from ditch 310157 in Area 31. One retains sufficient portions of the edges to suggest a polygonal shape and has a single, intentional perforation in one surface. The other has no surviving margins but has two unaligned and abandoned perforations, one on each surface, perhaps indicative of discard during manufacture. The purpose of these objects is unclear, but it is probable that they are decorative items of some sort.

7.11.4 A total of six worked/utilised pieces of stone was recovered from Zone 3, one from Area 53 and five from Area 55. An object classed as a form of whetstone was collected from Romano-British ditch 530302 in Area 53. This is a wedge-shaped fragment of sandstone with smooth surfaces and a slightly waisted groove on its outer edge, probably resulting from sharpening knives or pins.

7.11.5 The pieces from Area 55 are all associated with crop-processing or other craft activities of Roman date. Two pieces came from pond 550022. This feature was used as a waste dump and contained a large amount of Roman finds. One of the pieces is Millstone Grit and almost certainly from part of a rotary quern with a moderately polished surface indicative of use.

The other is a 60 mm thick fragment of partially burnt sandstone with two opposing surfaces worked to a polish, one of which is slightly concave. This may derive from a saddle quern or rubstone but none of the original edges survive, so the suggestion remains tentative. Two other quern fragments, one of Millstone Grit and the other a coarse sandstone, were found in ditch 550518, while another tentatively identified fragment of quern in a coarse sandstone was recovered from ditch 550520.

7.12 Glass

7.12.1 Fourteen pieces of glass were recovered from six excavation areas and two evaluation trenches in Zone 2, while a further 83 pieces came from three areas in Zone 3. The Zone 2 pieces include the two glass beads and the unusual brown glass 'jewel' from the Anglo-Saxon cemetery described in section 7.6 above. The glass from both Zones ranges from Romano-British to modern in date and, although the pieces survive in good condition, most are highly fragmented.

7.12.2 A single bead (ON 900240) was found in ditch 210017 in Area 21. This is a dark blue, biconical bead typical of a Roman form which tends to vary in size through time (Guido 1978, 97, fig. 37 nos 12 and 13). This example, at 5 mm diameter, is likely to be of late Roman date, and this is supported by its association with late Roman pottery. Two small pieces of Roman vessel glass came from Areas 30 and 40. One is a fragment of brown glass possibly from the base of a vessel (gully 400554), while ditch 300153 in Area 30 contained a fragment of thin, yellow, vessel glass. Both pieces were found in association with large amounts of Roman pottery.

7.12.3 Two pieces from Area 8 include a tiny flake of green glass from posthole 800081, and a small fragment of pale blue-green glass from a square vessel in layer 800438 (remnant topsoil on the surface of a natural feature). A small pale blue-green fragment of the beaded rim of a vessel was found in trackway 900050 in Area 9, and another very small piece of blue-green glass came from ditch 120032 in Area 12. Some of these derive from features/deposits of demonstrably modern date and, although small, the glass is almost certainly of this period. Three fragments of dark green wine/spirit bottles of probable 18th-century date also came a field drain in trench 282.

7.12.4 A large (15 mm in diameter, 12 mm wide) cylindrical, off-white bead of uncertain date was found in the topsoil of trench 322. This is decorated with two rows of irregular, red, marvered dots separated by a shallow channel (up to 3 mm wide and 1–2 mm deep), but it is unclear whether this represents damage or originally containing a trail of another colour.

7.12.5 Four pieces of Roman glass were also found in Area 55 within Zone 3. Three of these – two pieces of pale green vessel glass and part of a blue-green chain handle from a jug or bottle – were found in association with several kilograms of mid-Romano-British pottery in pond 550022. A single clear blue-green fragment from a square vessel from ditch 550518 was found in association with numerous other finds of Roman date.

7.12.6 Ten fragments from a single wine/spirits bottle of late 17th or 18th-century date were recovered from the topsoil of Area 55. These include a portion of the neck which retains a flat, sheared rim and a string collar. Fragments from more modern bottles include a near-complete beer/'pop' bottle of colourless clear glass with 'Soames & Co Ltd Spalding' (a Lincolnshire based company) embossed on the side, and 'B&Co Ld 604' on the base (ditch 550050). This brewery was founded in approximately 1800 and ceased production in 1949 (Internet source; heritagesouthholland.com), but this example probably dates to the first quarter of the 20th century. Ditch 550097 contained the base and two re-joining pieces from an octagonal ketchup bottle of colourless clear glass embossed with 'H.J. Heinz CO.255

PAT3,' and of a form also dating to the first half of the 20th century (Internet source; Bottleinfo.com). A fragment of thick, green vessel glass was also found in the topsoil.

7.12.7 Ditch 580006 in Area 58 contained 47 pieces of glass. These are all fragments from a single vessel, a cylindrical phial of green glass approximately 60 mm in diameter and dating to the middle of the 18th century.

7.12.8 The 27 pieces collected from Area 60 all date to the post-medieval period. Ditch 600250 contained 16 fragments from four wine bottles, all of green glass. Ten of these are from a late 17th/early 18th century 'bladder' or 'onion' bottle which has had '] B = 1749' scratched onto the surface of its shoulder. This is an unusual feature, and its meaning is unclear, but if the numbers represent a date, then a period of curation is implied. Two large base fragments derive from further onion bottles and date from the first half of the 18th century, while another base comprising three refitting fragments comes from a cylindrical bottle of the mid/late 18th century. A base fragment of thick, green glass from a beer or wine bottle dating to the late 19th century was found in ditch 600243.

7.13 Ceramic building material

7.13.1 A combined total of 112 pieces of ceramic building material were recovered. This material is distributed at a low density across numerous trenches and areas. No more than six pieces were found in any one feature and all the fragments are small (mean weight 142.5 g).

7.13.2 A collection of 33 pieces was recovered from the evaluation trenches in Zone 2. All are either undated or range between the medieval and modern periods; most came from the topsoil or subsoil. These include 11 pieces of probable roof tile (trenches 39, 110, 111, 137, 149 and 156), the largest number from a single trench being the four pieces from trench 39. Peghole roof tiles are a type developed in the 12th century, but continuing largely unchanged into the present, which makes dating difficult. Two fragments came from ditch 15605 in trench 156, but all the others occurred in topsoil or subsoil deposits. A single piece of possible floor tile, most likely to be of modern date, was also found in the topsoil of trench 137.

7.13.3 Nine pieces of brick were collected from three trenches, and all of these date to the post-medieval period. Five pieces of (probable) paving brick were found in the subsoil of trench 230, and a fragment of 'special' brick with a double bevel forming a triangular edge came from the topsoil of trench 122. The remaining three pieces, poorly wedged but hard-fired fragments, were found in ditch 15605 in trench 156.

7.13.4 A total of 12 undiagnostic, flat, or featureless fragments of uncertain date were found in five trenches, with the highest single total derived from a layer in trench 41 (four pieces). Four pieces were collected from the topsoil of trenches 70 and 109, three came from ditch 12309 in trench 123, and a single fragment was found in isolation in quarry 6103 in trench 61.

7.13.5 The mitigation phase of Zone 2 produced 43 pieces distributed across 15 excavation areas and ranging in date between Roman and modern. The Roman pieces include two featureless fragments and one piece from one of the smaller, thinner (*bessales*, *pedalis* or *lydion*) brick types, these from three ditches in Area 8, while four flat fragments and two pieces of brick came from four ditches and one pit in Area 18. Two pieces from ditches in Area 38 include a featureless fragment, and a piece from a *tegula* roof tile, especially notable for having an unusual triangular flange (ditch 380260). Two graves in Area 9 also contained three flat fragments which are likely to be residual Roman pieces. Also from Area 9, a post-medieval roof tile fragment was recovered from the topsoil, and a flat, featureless piece of uncertain date was found in a trackway.

7.13.6 A fragment of post-medieval/modern roof tile was found in the topsoil of Area 17, and a ditch here contained a probable paving brick of the same date. Ditch 190031 in Area 19 contained a fragment of probable roof tile and a featureless fragment of vitrified brick. A piece of post-medieval roof tile and a fragment of modern field drain came from a ditch and a pit in Area 33. Pieces re-joining into two complete paving bricks of post-medieval date were also recovered from a drain in Area 21. Nine post-medieval pieces were found in Area 28 – six brick fragments from the topsoil, two pieces of roof tile from a deposit of made ground and one from a furrow. Six pieces from modern field drains were collected from three ditches in Area 41. Colluvial layer 340003 in Area 34 contained a fragment of probable roof tile, while a small featureless fragment came from quarry pit 500036 in Area 5; both pieces are of post-medieval or modern date. Another modern field drain fragment was found in ditch 120032 in Area 12.

7.13.7 A total of 36 pieces were recovered from the mitigation phase of Zone 3. These were collected from four areas and were again distributed at a low density, with all but one feature containing three pieces or fewer.

7.13.8 Seven pieces were found in five features in Area 52. Two ditches contained modern fragments, a single airbrick and three pieces of field drain. One fragment of probable post-medieval roof tile was found in pit 520060. A single piece of probable Roman brick was collected from a ditch, and a piece of *tegula* was found in ditch 520147. This example is notable for retaining the lower cutaway, a feature which allows it to be attributed a more refined date, in this case, to the mid-2nd to mid-3rd century AD (Warry 2006, fig.1.3, 4 – C56).

7.13.9 Seven pieces were also recovered from Area 53; three modern pieces of field drain (one from the topsoil and two from a large pond feature) and four from Roman brick, including two derived from one of the smaller, thinner forms, found in two ditches and a pit. Ten pieces were also found in ditches in Area 55. These include two fragments of Roman brick and a piece of *tegula* roof tile as well as an intrusive modern field drain fragment) from three interventions in ditch 550518. Eleven pieces of modern field drain (modern spur ditch 600243) were found in Area 60.

7.14 Worked bone

7.14.1 In addition to the five pieces of worked bone/antler from the Anglo-Saxon cemetery in Area 9 in Zone 2 described in section 7.6, a further 12 pieces were recovered from other parts of Zones 2 and 3. All are from cut features, either undated or of demonstrable Iron Age/Roman-British date. The items include objects related to several crafts or activities, as well as those primarily designed for decorative purposes.

7.14.2 Four pieces of worked bone and four of antler were recovered from the non-cemetery areas of Zone 2. These include three re-fitting fragments of red deer antler (elongated pit/short gully 800399 in Area 8) which form an incomplete segment of the beam, sawn off from the region immediately below the crown. This artefact is of uncertain function, but it is likely to be some form of decorative fitting, or perhaps a handle for a tool. A small (5 mm diameter) hole on the surface presumably results from the insertion of a rivet. It was found in association with a large amount of late Roman pottery and very probably dates from this period.

7.14.3 One piece (ON 170004) was recovered from ditch 170152, a Romano-British feature in Area 17. This object, also formed of red deer antler, is a near-complete comb with 13 short (7 mm), widely spaced teeth. It has a plano-convex profile and narrows considerably towards a handle which is perforated with a hole 6 mm in diameter, almost certainly to allow

suspension from a belt or rack when not in use. These implements are usually described as weaving combs, used to beat the weft in on the loom, and are common throughout the Iron Age and Romano-British periods, particularly in the north of Britain (Allason-Jones and Miket 1984, 38). A broadly similar example, dated to the Iron Age, was found at South Shields Roman fort near Newcastle (ibid. fig. 2.23, 39).

7.14.4 Two pieces of worked long bone were also collected from features in Area 18. Possibly early medieval ditch 180625 contained a fragment from the proximal end of a cattle-sized metatarsal with a perforation in the centre of the articular surface. Little of the shaft remains, but this perhaps tapers slightly and may have been intended to form a 'point' tool. These are common components of both Iron Age and Romano-British assemblages, but their specific purpose often remains obscure, with various interpretations offered, including, for example, gouges or handles (May 1996, 351–353), or potential pin-beaters used in weaving (Selwood 1984, 382–7). However, the majority of these tools are formed from the bones of sheep or goat, and it might be more likely that this example is the fractured remnant of a handle, wherein the tang of a metal tool passed through the perforation to be secured at the end (May 1996, 359).

7.14.5 Undated pit 180305 contained an almost complete sheep/goat metatarsal with two perforations, one in the proximal articular surface, and another through the interior surface of the distal end of the shaft. No traces of gloss or additional modifications are evident, but the surface preservation is notably poor. These objects, often referred to simply as 'metapodial tools', are also common finds on Iron Age and Romano-British sites. They are well documented in assemblages from Iron Age sites such as Danebury, Maiden Castle and Glastonbury, but examples have also been found at Roman sites including the South Shields Roman fort (Allason Jones and Miket 1984, 39, fig. 2.24) and Lincoln's lower city defences (Mann 1999, 164, fig.81.102). Numerous examples of slightly varied form are known from Dragonby near Scunthorpe, most commonly associated with Late Iron Age and early Romano-British contexts. The example here is slightly unusual, as the position of the distal perforation is rare, but it is similar to those of Type 4 from Dragonby (May 1996, 353–7). These tools are usually interpreted as being bobbins for use in weaving.

7.14.6 Ditch 400549 in Area 40 contained two objects, both formed from long bone shaft fragments of an indeterminate species. One of these is broken, but clearly tapers towards one end and has possibly been worked into a flat, spatula-like shape at the other. This might be an unfinished point/pin but could have been intended as a double-ended tool of some sort. The other piece has been minimally worked to produce several flatter regions, and both ends have been cut at an acute angle. It is possible that this too is an unfinished piece, and the presence of such incomplete objects would imply that bone was being worked on the site. However, this second example bears some resemblance to objects often interpreted as double-ended pegs, although their specific function is unclear (Crummy 1983, 158, fig.194). These artefacts are difficult to date but were found here in association with a moderately large amount of Late Iron Age pottery.

7.14.7 Only four pieces of worked bone were collected from Zone 3, all from Area 55 and from features of Roman date. Pit 550380 contained another example of a 'metapodial tool' which, as discussed above, was possibly used in the process of weaving. This is a sheep/goat metatarsal with a single perforation through the proximal articular surface, and a pronounced surface gloss over much of the shaft (Dragonby type 4). The pit also contained nearly 200 g of early Roman pottery (late 1st–mid-2nd century), which almost certainly dates this object.

7.14.8 Ditch 550529, a feature of mid-Roman date, contained the distal portion of a horse metatarsal which has had its proximal end removed with a saw and a large (17 mm diameter) hole carved into the resultant surface. A lump of heavily corroded iron remains socketed in this perforation, clearly indicating that this is the bone handle for an iron tool. The shaft of the bone is highly polished from use, but it appears that the degree of smoothness results in part from additional shaping of the shaft for ease of handling.

7.14.9 Examples of bone points were recovered from ditch 550518 and ditch/hollow 550538, both of Roman date. The former is a fragment of cattle-sized long bone shaft which has been roughly shaped to a point and has possibly been rounded off at the opposing end. The surface condition is poor, and no traces of gloss, wear or other modifications are evident. The piece from ditch/hollow 550538 is the broken, central portion of a tibia shaft fragment from a sheep or goat. Enough survives to show a pronounced narrowing towards a presumed point, and the entire surface is highly polished from use. This was found alongside more than 3 kg of early Roman pottery.

7.14.10 Establishing the purpose of these bone points is rendered difficult by their fragmentary condition, but even complete examples have been interpreted as serving several different functions. At Danebury, in Hampshire, for example, it was suggested (Sellwood 1984, 371–395) that they were pin-beaters used in weaving and, although the examples reviewed here are difficult to define with confidence, such a function is also possible.

7.15 Synthetics

7.15.1 Two modern plastic buttons, one embossed with a crown motif, were recovered from the topsoil of evaluation trench 118 in Zone 2.

7.16 Human bone

Introduction

7.16.1 Human bone was recovered from 32 contexts distributed across six excavation areas within Zones 2 and 3. The majority (25 contexts) derived from Area 9 and include the remains of 23 inhumation burials which comprised part of an Early Anglo-Saxon cemetery (later 6th–late 7th century+; see section 6.6 and 7.6) centred on a probable Bronze Age round barrow (ring ditch 900066: Fig. 35). Disarticulated, redeposited bone was also recovered from the subsoil overlying the cemetery features and within one grave fill. The archaeological investigations were limited to a 13 m-wide strip through the cemetery, consequently its full size, nature and composition remain unknown.

7.16.2 Redeposited, unburnt human bone was recovered from three non-cemetery contexts in Areas 8 and 56. In the former area, fragments of single skeletal elements were recovered from a pit fill and a boundary ditch, situated 73.5 m apart amongst the remnants of a Romano-British ‘ladder settlement’ (Figs 33–34). Pottery recovered from the pit indicates a late Romano-British date for the feature, though this does not necessarily reflect the date of the bone itself. In Area 56, some 33.5 km to the south, most of a left humerus was recovered from a ditch fill, having potentially been deliberately placed on a stabilisation horizon following some initial infilling. In the absence of any dating evidence – associated artefactual or stratigraphic – a sample of the bone was submitted for radiocarbon analysis and returned a mid–late Romano-British date (see section 9).

7.16.3 Cremated human bone was recovered from four contexts distributed amongst Areas 41, 53 and 54 (Figs 58, 65 and 66 respectively). In Area 41, the bone was redeposited, together with some fuel ash, in the fill of a prehistoric ring gully. The southern-most of the deposits, made 214.5 m apart in adjacent Areas 53 and 54, comprised the remains of an unurned

burial with a secondary deposit of fuel ash. The nature of the deposit made in a relatively large feature in Area 54 is currently uncertain but was also inclusive of fuel ash. There is no direct dating evidence from these two features, and although the general Romano-British date attributed to most of the other features in these areas might also indicate the date of the mortuary activity, this cannot be taken as conclusive.

Methods

7.16.4 The remains – cremated and unburnt – were subject to a rapid scan to assess the condition of the bone, demographic data, the potential for recovery of metric data, the presence of pathological lesions and – for cremated remains – pyre goods, and information related to the mortuary rites and taphonomic processes. Assessments of age and sex were based on standard methods (Bass 1987; Beek 1983; Buikstra and Ubelaker 1994; Scheuer and Black 2000). Sexing of younger immature individuals (<13 yr) was generally not attempted in accordance with accepted practice. The varying levels of confidence with regard to estimate of sex include confident, probable (denoted as '?' in the tables) and most likely (denoted '??'). Grading for preservation of the unburnt bone follows McKinley (2004a, fig 6). The results are summarised in Table 36 (non-cemetery remains) and Appendix 1 Table 45 (Anglo-Saxon cemetery).

The Anglo-Saxon cemetery

7.16.5 Grave depths within the cemetery varied between 0.05m and 0.43 m. Horizontal truncation of some skeletal elements was evident in the shallower graves (generally those of 0.10 m or less). There was little intercutting between features with the exception of grave 900104, where skeletal elements had been removed by the insertion of grave 900067 to the north (skull and cervical vertebrae) and grave 900114 to the south (lower limbs). The disturbed elements were not recovered within the backfill of the later graves. One grave (900184) was truncated during initial machine stripping of the site, and a few burial remains were subject to disturbance as a result of animal burrowing.

7.16.6 The burial environment of acidic sand and gravels resulted in moderate to marked chemical leaching of the cortical bone surfaces (Grades 3–5), though variation in bone survival was apparent between graves (Table 45). The low pH also had a deleterious effect on trabecular bone preservation, with much of the axial skeletal and long bone articular surfaces being largely damaged or destroyed. There are no complete, intact skulls, and most postcranial elements are also fragmented. The infant burial remains within grave 900187 were not observed in the field but tooth crowns and scraps of degraded long bone were recovered from soil samples taken towards one end of the cut near an amber bead. The effects of the disturbance and poor skeletal condition are reflected in the low levels of skeletal recovery (<40%) from just over 25% of the graves.

7.16.7 A minimum of 23 individuals (MNI) were identified, with each of the 22 graves containing the remains of a single burial with the exception of grave 900019 where two immature individuals had been placed together (Table 45). Grave 900184, which had suffered truncation, was interpreted as containing the remains of two individuals during excavation (denoted burials 900186 and 900199), but the lack of duplicate elements and consistency in size, age and appearance makes it probable the bones derived from a single subadult.

7.16.8 The majority of the remains were those of adults, comprising seven females (including two probable and one most likely), eight males (including one probable and two most likely) and two unsexed. The remains of six immature individuals were identified comprising one young and one older infant and four subadults – one confidently identified as female, one probable and one most likely. Most of the adults were young, with only two (from graves 900114 and 900161) older than 40 years. The small amount of redeposited bone recovered derived from

a juvenile and two adults (one young, one old) and probably comprise disturbed elements from the *in situ* burial remains; consequently they have not been included amongst the MNI.

7.16.9 Pathological lesions were recognised in 17 individuals. Poor bone preservation limited the identification of more subtle surface pathological lesions (e.g., periostitis) and joint disease, but a range of skeletal diseases and trauma was noted in the assemblage. These include fractures, two cases of probable spondylolysis/ spondylolisthesis, chronic sinusitis, *cribra orbitalia*, possible tuberculosis or brucellosis, degenerative joint disease including osteoarthritis, periosteal new bone deposition, and muscle and tendon damage. Overall, dental health was good, with disease largely limited to calculus deposition and very slight dental enamel hypoplasia in most individuals. As dental disease is attritional, this may reflect the fairly young age of the assemblage.

Non-cemetery unburnt bone

7.16.10 The unburnt bone from the non-cemetery features all derived from well-sealed deposits. The broken edges with no adjoining fragments comprised old dry-bone breaks. In contrast with the remains from the Anglo-Saxon cemetery in Area 9 – where the graves had been cut through and backfilled with the unmodified natural sands and gravels – the non-cemetery bone is in relatively good condition with only slight–moderate surface erosion/abrasion of that from Area 8 (Table 36). The left humerus from the ditch in Area 56 is almost complete and in good condition. There is clear evidence for deliberate human manipulation of the bone whilst in a 'green' state in the form of a chop mark on the anterior medial shaft adjacent to the articular surface (elbow joint) which would probably have removed part of the medial epicondyle – indicating dismemberment (Fig. 199). There is also evidence for defleshing in the form of a series of short, fine 'filleting' marks on the proximal and distal dorsal surfaces of the bone at the margins of the *teres minor* and *triceps* muscle attachment. In addition, there are indications that the bone was subsequently – as dry bone – subject to curation, most of the surface having a slightly 'polished' appearance. This combination of factors intimate that the bone did not comprise an accidental deposition, but might have been deliberately placed.

Table 36 Summary of scan of non-cemetery human bone

Context	Cut	Area	Deposit type	Quantification	Age/sex	Comment
Unburnt bone						
800010	800464	8	R (boundary ditch)	frag. left humerus	neonate	2, slightly eroded, dark staining
800090	800089	8	R (pit)	4 joining frags. occipital vault	adult 35–55 yr ?male	2–3, eroded/abraded; slight hypervascularity exocranial surface
560025	560024	56	?placed deposit (ditch fill)	left humerus	adult >20 yr ??male	0–1; chop & filleting cut marks, 'polished' appearance to cortex
Cremated bone						
410050	410049 (0.25 m) Gp. 410125	41	R crd inc. fuel ash (fill ring gully)	60.2g	subadult/adult >15 yr	slightly eroded; some slightly grey; bone not observed in excavation – 1 m slot excavated, possible some was missed?
530133	530132 (0.15 m)	53	crd – ?rpd	109.8 g	adult 18–40yr	much grey, some blue/black; min. skull, upper & lower limb, some trab.; majority

						(65%) in spit 1 NW Q – large feature 0.90 x 0.60
530295				34.7 g	= 530133	=530133 SW spit 1
540004	540003 (0.05 m)	54	un. burial + rpd	301.2 g	adult >20 yr ?male	some grey, black 'core' major lower limb bones; longbone shaft, some skull (large petrous temporal) some trab.; large, robust bones; 62% in W half, only 19% in E

Key: R – redeposited; crd – cremation-related deposit; rpd – redeposited pyre debris; un. – unurned; trab. – trabecular bone

7.16.11 A minimum of three individuals is represented amongst the non-cemetery unburnt bone. Although the cranial fragments from Area 8 and the humerus from Area 56 both appear to have originated from an adult male, the substantial distance between the two deposits (33.5 km) render it highly unlikely that they derived from the same individual.

7.16.12 The only pathological lesions observed comprised slight hypervascularity in the exocranial surface of the occipital vault fragments from probable crop-dryer 800089. The potential causes for an increase in vascular activity in the cranium include metabolic conditions such as iron deficiency anaemia (Roberts and Manchester 1997, 166–173), in which parasitic infection of the gut can be a major contributory factor as well as a deficiency in iron-rich foods such as red meat and legumes.

Cremated remains

7.16.13 The features containing the cremated remains had survived to varying depths ranging from 0.05 m to 0.25 m. No bone was evident at surface level in any of the features, suggesting minimal horizontal disturbance, but cremation grave 540003 had been subject to animal burrowing which could have removed some of the fill. The bone recovered from the 1 m investigative slot through the ring ditch in Area 41 was not observed in excavation and, consequently, it cannot be confirmed that the bone/deposit was recovered in full. The bone from the latter feature is slightly eroded, whilst that recovered from the features further south is in good visual condition and includes some trabecular bone as well as the more robust compact bone.

7.16.14 A probable minimum of three individuals is represented amongst the cremated remains, the 18.5 km between the redeposited remains from Area 41 and Areas 53/54, together with the anticipated difference in date, rendering it improbable that the material could have derived from the same cremation. Such is not necessarily the case for the deposits made in the two adjacent southern areas and separated by a distance of just 214.5 m, however. Here the levels of oxidation observed in the bone are similar and the nature of one of the deposits is uncertain, consequently, further analysis and deliberation is required to deduce any potential connection between the two.

7.16.15 The majority of the bone from gully 410049 is white in colour, indicative of full oxidation. There is greater variation in the levels of oxidation observed in the bone from Areas 53 and 54, with many fragments being grey in colour and some blue/black. This suggests there was not enough time for complete oxidation to occur due either to insufficient fuel being used to construct the pyre or adverse weather conditions (e.g., rain curtailing the process). Although such variation is not exclusive to any one temporal period, it is relatively common in Romano-British remains (McKinley 2008a).

7.16.16 Elements from at least the skull, upper and lower limb were observed within the two larger deposits, but very few tooth roots or hand/foot bones (e.g., phalanges). The latter might

suggest bone recovery from the pyre site was undertaken by hand – rather than raking with subsequent winnowing – which would mitigate against the collection of the smaller bones, these being harder to distinguish amongst the mass of pyre debris (McKinley 2004b, 299–301; 2015, 423–4).

7.16.17 The presence of fuel ash – presumably pyre debris – within all the deposits containing cremated bone indicates that pyre sites were probably located relatively close to the place of deposition of the remains (McKinley 2004a; 2013; 2015).

7.17 Animal bone

Quantity and provenance

7.17.1 Animal bones were retrieved from most of the mitigation areas, with a total of 9335 fragments recovered from Zones 2 and 3 (Table 37). Once refits and associated bone groups (or ABGs) are considered, the total count is reduced to 6594 fragments (Tables 38–39).

Table 37 Provenance of animal bone assemblage by Zone, mitigation area and period

Period	Zone 2 Area	Zone 3 Area
Bronze Age	9	-
Prehistoric	7, 12, 18–9, 22, 31, 35, 40–1	-
Iron Age	7, 12, 29, 40	-
Late Iron Age/early Romano-British	8, 17, 29, 30, 40	53
Romano-British	5, 8–9, 17–8, 30, 38, 40	52–5, 61
Saxon	9, 18, 35	61
Medieval	18, 28, 34	-
Post-medieval/modern	29, 33–4	50–2, 54–8, 60, eval
Unphased	7–8, 17–9, 28–31, 33–5, 38, 40–1, eval	52–3, 55–6, 59–61, eval

Methods

7.17.2 The assemblage was assessed by rapid scanning following current guidelines (Baker and Worley 2019). The bones from each context were broadly quantified in terms of composition (e.g., species and range of elements) and the type of detailed information available for further research (e.g., epiphyseal fusion, tooth wear, butchery and biometric). Taphonomic indicators such as preservation state, canid gnawing and burning were also noted.

Preservation condition

7.17.3 Bone preservation varied across Zones 2 and 3 and individual excavation areas due to localised differences in geology, hydrology and soil pH, but was generally fair to poor, occasionally good. Considerable differences were noted in the condition of bones from some ditch deposits, particularly in areas where multiple phases of intercutting features (e.g., Areas 18 and 40) were recorded. High rates of residuality are to be expected in areas of intense activity where the probability of secondary deposition from earlier contexts is more likely.

Summary by Zone and period

7.17.4 The following sections provide a general summary of the dataset by Zone and period (see Tables 37–39), highlighting the general composition of the assemblage and any significant aspects. There then follows more detailed consideration of the assemblages from each Area within Zones 2 and 3.

Table 38 Animal bone: number of identified specimens (or NISP) from Zone 2 by period

Species	Bronze Age	Prehist	Iron Age	Late Iron Age/ early RB	RB	Angl-Sax	Med	P-med/ mod	Unphased	Total
Cattle	2	36	26	18	177	18	61	2	194	*534*
Sheep/goat	-	43	32	7	141	18	25	-	117	*383*
Pig	1	1	1	3	23	3	6	1	18	*57*
Horse	-	14	1	1	34	-	6	-	30	*86*
Dog	-	1	1	1	4	-	1	-	-	*8*
Cat	-	-	-	-	1	-	-	-	-	*1*
Red deer	-	1	1	-	2	-	1	-	-	*5*
Hare	-	-	-	-	-	-	-	-	1	*1*
Domestic fowl	-	-	-	-	1	-	-	-	1	*2*
Mole	-	-	-	-	1	-	-	-	-	*1*
Rodent	-	1	-	-	6	1	-	-	1	*9*
Fish	-	-	-	-	1	-	-	-	2	*3*
Frog/toad	-	-	-	-	2	-	-	-	-	*2*
Total identified	3	97	62	30	393	40	100	3	364	*1092*
Total unidentifiable	11	276	154	121	1071	62	1135	16	971	*3817*
Overall total	*14*	*373*	*216*	*151*	*1464*	*102*	*1235*	*19*	*1335*	*4909*

Table 39 Animal bone: number of identified specimens (or NISP) from Zone 3 by period

Species	Late Iron Age/ early RB	Romano-British	Anglo-Saxon	Post-medieval/ modern	Unphased	Total
Cattle	-	144	4	18	49	*215*
Sheep/goat	3	120	2	13	24	*162*
Pig	1	14	-	1	8	*24*
Horse	-	34	1	11	14	*60*
Dog	-	2	-	-	-	*2*
Rabbit	-	-	-	-	1	*1*
Domestic fowl	-	-	-	2	-	*2*
duck cf. teal	-	1	-	-	-	*1*
passerine	-	1	-	-	-	*1*
Rodent	-	8	1	1	6	*16*
Fish	-	2	-	-	5	*7*

Frog/toad	-	-	-	8	-	*8*
Total identified	4	334	8	54	107	*499*
Total unidentifiable	-	929	5	39	213	*1186*
Overall total	*4*	*1255*	*13*	*93*	*320*	*1685*

Prehistoric

7.17.5 The small group from Bronze Age ring ditch 900066 in Area 9 of Zone 2 includes a few identifiable fragments of cattle and pig bones. Bone also came from prehistoric features in several other areas, but most were derived from Areas 31 and 40. Sheep/goat bones dominate overall, followed by cattle and then horse, with single elements from pig, dog and red deer (antler). The sieved assemblage includes a few rodent bones, mostly from water voles. A partial sheep/goat ABG was recorded from pit 190047 in Area 19. Small amounts of bone were recovered from features of Iron Age date in four areas. Most of the identified elements are from sheep/goat and cattle, with single bones from pig, horse, dog and red deer (antler).

7.17.6 No bones were recovered from confirmed pre-Iron Age features in Zone 3.

Late Iron Age/early Romano-British

7.17.7 Bones were recovered from ditches of this period in five areas of Zone 2, with the majority from Area 8. Most of the small number of identified bones are from cattle and came from ditch 800487. Deposits contained mixed waste from various stages in the carcass reduction sequence, with the exception of Areas 30 and 40, where discrete dumps of primary butchery waste were noted from some features. In addition, a few sheep/goat and pig bones were also recovered, as well as single elements from a horse and dog.

7.17.8 Within Zone 3, a few sheep/goat bones and single pig element were recovered from a Late Iron Age/early Romano-British ditch in Area 53.

Romano-British

7.17.9 Relatively large amounts of animal bone were recovered from features of Romano-British date across several locations in both Zones. In Zone 2, the largest groups came from Areas 8, 18 and 40. Cattle bones predominate, followed by sheep/goat, horse and then pig, with some dog and red deer, as well as a small range of birds and other animals. Of particular note is the semi-complete remains of an immature lap dog from a ditch in Area 17. Mixed deposits from different stages in the carcass reduction sequence were recorded across all areas. However, a few discrete deposits of primary butchery waste from the processing of horse carcasses were noted from Areas 18 and 40. Much of the other butchery evidence was recorded on cattle bones. There was also some pathological evidence for the use of cattle as traction animals.

7.17.10 In Zone 3, approximately 74% of the total assemblage by fragment count came from Area 55. Cattle and sheep/goat bones dominate, followed by horse and then pig, as well as a few dog bones and a small range of minor animals. Mixed deposits of bone waste from different stages in the carcass reduction sequence were recorded from most features, with the exception of ditch 550525 which largely comprised bones from primary butchery (i.e., heads and feet). Several ABGs were recorded from Romano-British ditches, these comprising the partial skeleton of a calf and an articulated group of calf bones, as well as the semi-complete skeleton of an immature horse.

Anglo-Saxon

7.17.11 Animal bone was recovered from a few features of Anglo-Saxon date in Areas 9, 18 and 35 in Zone 2, and from a single ditch in Area 61 of Zone 3. Most of the identified bones are from cattle and sheep/goat, with a few pig and rodent bones, as well as a single horse bone. In Area 9, meat joints, mostly of mutton/lamb but also pork, were placed in graves as food offerings.

Medieval to post-medieval/modern

7.17.12 A small number of bones were recovered from Zone 2, particularly from ditches in Areas 18, 28, 29 and 34. Most of the identified elements are from cattle, with some sheep/goat and a few horse and pig bones, plus single elements from a dog and red deer.

7.17.13 Animal bones also came from ditches and a few pits of this period in several areas of Zone 3. Most of the identified bones are from cattle and sheep/goat, followed by horse, domestic fowl and then pig, as well as a few bones from minor species. Of note is the semi-complete skeleton of a calf from one of the pits in Area 56.

Unphased

7.17.14 Large amounts of animal bone came from features of uncertain chronology across several of the Zone 2 excavation areas, but particularly Areas 18 and 40. Cattle bones predominate, followed by sheep/goat, then horse and pig, as well as one or two bones from a few minor species. The general composition of this component of the assemblage is similar to that of the main phase (e.g., Romano-British) recorded from each area.

7.17.15 Most of the animal bones recovered from unphased features in Zone 3 are also from cattle and other livestock including horse. Three ABGs comprising partial and semi-complete cattle skeletons buried in shallow pits and a group of articulated horse bones from a ditch, were also recorded, as well as bones from a few minor species.

Composition of the individual area assemblages (Zone 2)

Area 5

7.17.16 Two cattle bones, fragments of tibia and metatarsal, were recovered from Romano-British trackway 500061. The bones are in poor condition, so no additional information can be discerned.

Area 7

7.17.17 Identified bones were recovered from prehistoric pit 700171 and enclosure ditch 700297; they comprise loose teeth and post-cranial elements from sheep/goat and cattle, as well as two bones from the forequarters of a pony-sized equid. Butchery marks were noted on one of the cattle bones. Several small, unidentifiable fragments of animal bones were also recovered from prehistoric pit 700227.

7.17.18 Animal bones were also recovered from Iron Age features, mostly enclosure ditch 700300, ditch 700302 and pit 700281, with a few from roundhouse gully 700299. Sheep/goat and cattle bones predominate, and most body parts are represented. Part of a cattle skull with horn cores attached and a separate horn core from a juvenile animal came from enclosure ditch 700300. A pig tibia and a dog atlas vertebra were also recovered from this feature, while an eroded fragment of red deer metapodial came from roundhouse 700299. In addition, a cattle third molar and fragment of radius were recovered from unphased ditch 700052 and pit 700192.

Area 35

7.17.19 A few sheep/goat bones were recovered; these comprise fragments of tibia from prehistoric posthole 350019, and metatarsal, first phalanx and a loose tooth from Anglo-Saxon pit 350119. In addition, a few cattle bones and sheep/goat teeth came from several unphased pits and postholes.

Area 8

7.17.20 A few bones were recovered from the prominent Late Iron Age/early Romano-British double-ditched boundary (800487 and 800488) at Area 8. The identified elements are mostly from cattle and include a fragments of skull, mandible and a range of long bones, along with a few sheep/goat bones, a semi-complete horse metatarsal and a fragment of ulna from a relatively large dog.

7.17.21 Large amounts of animal bones came from the Romano-British ditches, with small amounts from several gullies and pits, and the occasional fragment from layers and crop-dryer or oven 800465. Cattle bones predominate and all parts of the beef carcass are represented. A group of disarticulated cattle bones, including right scapulae from four adult animals, as well as the humerus from a calf, were recovered from pit 800498 to the immediate west of ditch 800487. A few of the cattle bones show signs of butchery and pathological changes generally associated with traction animals were noted on a first phalanx.

7.17.22 The majority of the other identified bones are from sheep/goat, again with most body parts represented, indicating the presence of whole carcasses. A few pig and horse bones were also recovered, together with one or two bones from dog, cat, red deer and domestic fowl. Skinning cut marks were noted on one of the horse bones, and the red deer bones include a metatarsal and a worked piece of antler. In addition, the sample residues provided a few bones from small mammals, fish and amphibians, some of which are likely to be intrusive (e.g., mole).

7.17.23 Animal bone was also recovered from several unphased pits and a small number of other features. Most of the identified bones are from sheep/goat and cattle, with some pig, horse and from the sample residues, a few rodent bones.

Area 9

7.17.24 Two cattle bones, a tibia and metatarsal, and a pig tooth were recovered from Bronze Age ring ditch 900066, together with several small unidentifiable fragments. A single unidentifiable fragment of bone was also recovered from Romano-British trackway 900050, and part of a sheep/goat skull came from the topsoil.

7.17.25 Most of the animal bones came from inhumation graves of Anglo-Saxon date. Some are incidental inclusions in the backfill (e.g., 900060, 900070, 900114 and 900140), but others represent grave goods in the form of food offerings, mostly joints of lamb and mutton (graves 900137, 900161, 900175, and 900166). One example of a pork joint came from grave 900196. These were placed around the grave, often overlying or adjacent to the human remains. Multiple joints were recorded from graves 900137, 900161 and 900196, with single examples from the others.

Area 17

7.17.26 A fragment of cattle radius and a horse tooth, together with the semi-complete skeleton of an immature dog aged 5–8 months, were recovered from Romano-British ditch 170152. A radiocarbon date of 43 cal. BC–cal. AD 120 (SUERC-108719, 1981±31 BP) was obtained on a sample of vertebra from the dog. Although not fully grown, it is clear from the size of

the bones that these are the remains of a very gracile animal of diminutive stature. The skull is fragmented and incomplete but there is enough to determine that the basic morphology was paedomorphic (i.e., relative short and broad, with a rounded cranium and no sagittal crest). The long bones which are straight and thin-walled, with low midshaft diameter indices, further indicate that this was a lap dog rather than the brachymel (or 'dwarf hound') types (see Teichert 1987) more commonly found on Roman sites in Britain, which were generally used for hunting (see for example, Harcourt 1974; Cram 2000; Baxter 2006). Lap dogs, however, are small companion animals, generally kept by the elite.

7.17.27 Fragments of cattle scapula and horse maxilla were recovered from Romano-British pit 170025 and ditch 170156. Bone was also recovered from several unphased features. Most of the identified bones are from cattle, including fragments of skull, mandible and two humeri. Fragment of horse maxilla were also recovered from one of the unphased ditches.

Area 33

7.17.28 Several small, unidentifiable fragments of bone were found in probable post-medieval ditch 330042.

Area 18

7.17.29 Bones from prehistoric pit 180034 include fragments of cattle maxilla and mandible, a sheep/goat metacarpal, dog humerus and three horse bones. The latter comprise a loose tooth, scapula and first phalanx. Pathological changes resulting from soft tissue damage were noted around the proximal articular surface of the phalanx.

7.17.30 Relatively large amounts of animal bone were recovered from Romano-British and medieval ditches 180069 and 180619, with particularly bone-rich deposits recorded at the southern extent of the exposed feature (e.g., slots 180127 and 180168). These deposits contained mixed waste from different stages in the carcass reduction sequence (O'Connor 1993, 56, tab. 1). Most of the identified bones are from cattle; they include fragments of skull with the horn cores attached, several semi-complete mandibles and a range of post-cranial elements. Sheep/goat bones are also relatively common, and a similar broad range of body parts was recorded, including part of skull from a ram (from ditch 180619). A few pig and horse bones were also recovered, together with a red deer tibia (also from 180619). Filleting cut marks were noted on one of the horse bones, a scapula from ditch 180069.

7.17.31 A small number of bones came from five ditches of Anglo-Saxon date. All the identified bones are from cattle and sheep/goat, and include a complete sheep horn core from ditch 180141.

7.17.32 The basic composition of the material from unphased features is similar to that from the other features – cattle bones predominate, followed by sheep/goat, then horse and pig. In addition, single bones from hare and domestic fowl, as well as two eel vertebrae, were recovered. Butchery marks were noted on several of the cattle and sheep/goat bones, and some burnt fragments were also noted.

Area 19

7.17.33 Several post-cranial sheep/goat bones from the same animal were recovered from prehistoric pit 190047. In addition, a cattle mandible came from unphased ditch 190076.

Area 38

7.17.34 A sheep/goat tooth and several small, unidentifiable fragments of bone were recovered from three Romano-British ditches. Two cattle teeth and a charred fragment of sheep/goat navicular (tarsal bone) came from unphased ditches 380107 and 380124.

Area 22

7.17.35 Two small, unidentifiable fragments of animal bones were recovered from prehistoric/Iron Age ring gully 220117.

Area 12

7.17.36 A small number of bones were recovered from several broadly dated prehistoric ditches; these include two sheep/goat tibiae, a cattle tooth, pig radius, and three horse elements comprising a loose tooth, radius and metatarsal. In addition, a few sheep/goat and cattle bones, mostly post-cranial elements, were recovered from Iron Age ditch 120088.

Area 28

7.17.37 A few cattle and horse bones were recovered from medieval ditch 280134. The cattle bones comprise a loose tooth and fragments of mandible, pelvis and metacarpal, and the horse bones an articulating radius and ulna. Another cattle tooth and part of a horse maxilla came from unphased ditches 280136 and 280137.

Area 34

7.17.38 A small quantity of animal bone was recovered from three medieval ditches (340171, 340173 and 340174). Cattle bones predominate, including fragments of skull and a range of post-cranial elements. Identified sheep/goat bones include fragments of mandible, radius and tibia, plus a few loose teeth. In addition, two horse bones and a dog canine tooth were also recovered.

7.17.39 The distal end of a cattle metapodial came from post-medieval/modern ditch 280133, and several small, unidentifiable fragments from ditch 340170 of similar date (and part of the same overall boundary). A few animal bones were also recovered from several unphased ditches, the identified bones including fragments of cattle humerus, sheep/goat tibia and a horse tooth.

Area 29

7.17.40 A small number of animal bones were recovered from this area. These include a loose cattle tooth from Iron Age/Romano-British ditch 290062, three cattle bones and a sheep/goat tooth from ditch 290064 of the same date, and fragments of cattle femur and pig mandible from medieval/post-medieval ditch 290010/290051. In addition, a small group of cattle bones and a horse tooth came from ditch 30015 in evaluation trench 300, which lay immediately to the north-west of Area 29. The cattle bones from this feature comprise fragments of skull, two metapodials and a calcaneus.

Area 40

7.17.41 Large amounts of animal bone were recovered from this area. They include a few cattle and sheep/goat bones from features belonging to the site's earlier phase (i.e., pre-alluvium). The range of elements suggests the bones derive from the initial stages of carcass processing (i.e., mostly cranial fragments and foot bones). Cut marks resulting from dismemberment were recorded on a cattle mandible fragment from Iron Age ditch 400563. The distal end of horse tibia was also recovered from this feature.

7.17.42 Most of the animal bones came from ditches and gullies from the site's later phase (i.e., post-alluvium), with the largest concentration from ditch 400549. Sheep/goat bones predominate, followed by cattle, then pig and horse. All three livestock are represented by a range of skeletal elements from whole carcasses, which were probably processed nearby, and the meat distributed locally. By way of contrast, the rather limited range of horse bones indicates that these primarily derive from the initial stages of butchery, with cut marks from skinning recorded on a metatarsal. A single dog tooth was also recorded.

7.17.43 A similar quantity and range of animal bones came from unphased features, mostly ditches and pits, but also a few gullies, postholes and an occupation layer. A few of the cattle bones are from juvenile animals and one of the pig bones is from a neonate.

Area 30

7.17.44 A fragment of pig mandible was recovered from Late Iron Age/early Romano-British ditch 300152. Most of the other bones came from Romano-British features, particularly ditch 300153, with smaller quantities from three other ditches (300098, 300138 and 300149). Sheep/goat bones dominate the small assemblage, followed by cattle, horse and then pig. Sheep/goat are represented by a range of cranial and post-cranial elements including several long bones from a neonatal lamb. Cattle are largely represented by waste elements from primary butchery, such as mandibles and foot bones. Horse is represented by a few disarticulated post-cranial bones, several of which are semi-complete, and pig by a single canine tooth from a sow. In addition, a few cattle and sheep/goat bones, together with a fragment of pig mandible, came from ditches 4805 and pit 4815, recorded in evaluation trench 48, which overlapped with Area 30.

Area 41

7.17.45 A horse tooth was recovered from prehistoric ditch 410095 and two, poorly preserved, unidentifiable fragments came from an undated ditch.

Area 31

7.17.46 Modest amounts of animal bone were recovered from features of prehistoric date, mostly ditches, but also a few pits and an occupation layer, with the largest concentration from prehistoric/Iron Age ditch 310170. Sheep/goat bones predominate, followed by cattle, and both species are represented by a range of cranial and post-cranial elements. Several of the cattle bones show evidence of butchery, and a patch of charring on the proximal end of a cattle scapula provides some indication that some meat joints were roasted on the bone. A few horse bones along with a few rodent (vole) teeth were also recovered from ditch 310170. The horse bones from the feature include fragments of femur, tibia and metapodial. In addition, a small piece of red deer antler was recovered from ditch 310175.

7.17.47 Animal bones were also found in a few unphased features and layers. Most of the identified bones are from cattle, including fragments from three mandibles and a few post-cranial bones. In addition, two sheep/goat bones, and fragments of pig femur and horse radius, were recovered.

Evaluation trenches

7.17.48 Animal bones were also recovered from several unphased ditches and a pit in Zone 2 evaluation trenches well beyond any of the excavation areas. Most of the identified bones are from sheep/goat, including a small group of burnt bones (radius, pelvis, metapodial and carpal) from pit 11603. A few cattle bones and a pig incisor tooth were also found.

Composition of the individual area assemblages (Zone 3)

Areas 50 and 51

7.17.49 No animal bones were recovered from Area 50, although some were found in evaluation trenches 427 and 428 which lay nearby. The remains were found in post-medieval/modern ditches 42704, 42805 and 42808, and include part of a cattle skull, a sheep/goat atlas vertebra and humerus, a pig metacarpal and two domestic fowl bones.

7.17.50 Similarly, a sheep/goat lumbar vertebra was recovered from a post-medieval/modern ditch in trench 465; the feature appears to be a continuation of ditch 510008 in Area 51.

Area 52

7.17.51 Sheep/goat and cattle came from several ditches, gullies and a few pits of Romano-British date. They include a small group of associated bones from the forequarter of a sheep/goat from pit/ditch terminal 520153. A pig tooth and the third phalanx from a horse were also recovered from this feature. Part of a cattle tibia came from post-medieval/modern ditch 520024, and a small, unidentifiable fragment was found in the same feature when it was investigated in trench 471.

7.17.52 Three ABGs and a small quantity of disarticulated bones were recovered from unphased features. Most of the identified bones are from cattle, including a partial ABG from ditch 520040 and a semi-complete skeleton buried in shallow pit 520114 (Fig. 189). The ABG from ditch 520040 consists of a fragmented skull, pair of mandibles, the upper cervical vertebrae (i.e., atlas and axis) and hyoid bone from a subadult animal aged between 30–36 months (MWS E, after Halstead 1985). The truncated skeleton in pit 520114 is that of an immature cow aged between 12–18 months (after O'Connor 1989). The large size of the bones indicates that this was an improved breed, most probably of post-medieval or later date. The third ABG comprises the articulated hindquarter from a pony-sized equid from gully terminal 520034. In addition, a sawn distal end of a pig femur was recovered from the topsoil.

Area 53

7.17.53 Three sheep/goat bones and pig calcaneus were recovered from Late Iron Age/early Romano-British ditch 530296. Most of the other bones came from ditches and gullies of Romano-British date. This component of the assemblage largely consists of cattle bones, particularly fragments of skull and mandible but also a few post-cranial elements, some of which show signs of butchery. A few sheep/goat and pig bones were also recovered.

7.17.54 Additionally, the few bones from unphased features have a similar composition to the main phase and include a semi-complete cattle mandible from a mature adult animal, which has cut marks from skinning across the diastema.

Area 54

7.17.55 A cattle atlas vertebra was recovered from Romano-British ditch 540049, and a fragment of sheep/goat tibia shaft and the atlas vertebra from a horse, came from post-medieval ditch 540031. Cut marks were noted on the latter, as were pathological changes characteristic of age degenerative joint disease.

Area 55

7.17.56 Relatively large amounts of animal bone came from Romano-British features in this area, with particularly bone-rich deposits from ditches 550518, 550525 and 550538. Cattle and sheep/goat bones dominate, followed by horse and then pig. The range of skeletal elements is consistent with the presence of whole carcasses, with mixed deposits of bone waste from

different stages in the carcass reduction sequence. These were recorded from the larger feature groups, with the exception of ditch 550525 which contained bones from primary butchery (i.e., heads and feet). Several ABGs were recorded from Romano-British ditches. These comprise the partial remains of a calf from ditch 550534, a small articulated group of calf bones from ditch 550536, and the semi-complete skeleton of an immature horse aged less than 15–18 months (after Habermehl 1975) from ditch 48206. Two dog bones, a mandible and the femur from a neonate puppy, were also identified in Romano-British contexts, along with a few bird (small duck, possibly teal and passerine), rodent and fish bones.

7.17.57 Animal bones were also recovered from several unphased features, mostly ditches with a few gullies and pits. The basic composition of this component is similar to the main phase of Romano-British activity, but also includes an intrusive rabbit bone. Three bones from a particularly large horse were recovered from the topsoil and ditch 550248; these may be of relatively recent date, although the ditch appears to belong to the Romano-British phase of activity at Area 55.

Area 56

7.17.58 The semi-complete skeleton of a calf aged between 1–8 months (mandible wear stage B, after Halstead 1985) was recovered from undated pit 560058 (Fig. 200). The animal was positioned on its left side, with the head pulled back over the right shoulder and the legs bent. The unusual position of the left leg, below the ribcage, indicates that the carcass may have been semi-decomposed when moved for burial. However, the location of the cattle burial adjacent to two parallel boundary ditches away from the main areas, one ditch containing potentially deliberately placed human bone of mid-late Romano-British date (see above), suggests the cattle burial may be associated with less prosaic activities, possibly animal sacrifice. In addition, a cattle atlas vertebra came from the recut of ditch 560034.

Area 57

7.17.59 A few bones were recovered from two post-medieval/modern ditches. These comprise a metatarsal from a calf and a fragment of horse pelvis from ditch 570012, and amphibian and rodent bones from ditch 570041.

Area 58

7.17.60 No animal bone was recovered from the excavation phase, although a fragment of sheep/goat tibia came from post-medieval/modern ditch 580006 when it was investigated in trench 521.

Area 59

7.17.61 A sheep/goat femur came from undated ring gully 590097, together with a rodent long bone and fish vertebra.

Areas 60 and 61

7.17.62 Animal bone was recovered from the arrangement of ditches (610136–610138 etc) that appeared to mark the north-western corner of a plot of land that extended beyond Area 61. A small number of cattle and sheep/goat bones, as well as a fragment of horse pelvis, were recovered from two components (610101/610116 and 610138) of this arrangement. These ditches are of possible Romano-British and Anglo-Saxon date respectively. Unidentifiable fragments of animal bone were recovered from several unphased features, with fragments of cattle and horse metapodials from ditches 610106 and 610137, also in this part of the site.

7.17.63 Mostly cattle bones and a few sheep/goat, pig and horse bones were recovered from several post-medieval/modern and unphased ditches in Area 60. One of the horse bones, a femur shaft fragment from ditch 600250, has several shallow nick marks on the cranial surface that potentially result from either skinning or filleting.

7.18 Marine and freshwater shell

7.18.1 Tiny quantities of marine and freshwater shell were recovered from Zones 2 and 3. The distribution and range of species represented are summarised in Table 40. Although shown here too, the two whelk shells from the Anglo-Saxon cemetery in Zone 9 are considered in section 7.6 above.

Table 40 Quantities and distribution of the marine and freshwater shell

Zone	Area	Oyster	Mussel	Freshwater mussel	Cockle	Whelk
Zone 2	Area 8	9 left valves, 2 right valves & fragments				
	Area 9					2 adults
	Area 37			1 valve		
	Area 28				1 valve	
Zone 3	Area 55	1 right valve			1 valve	1 juvenile
	Area 61		2 right valves			

7.18.2 The oyster shells (*Ostrea edulis*) from Area 8 were recovered from Late Iron Age/ early Romano-British ditch 800489, and several Romano-British features including pit 800498 and ditches 800491 and 800488. The valves are all small, with an average length of 60 mm and width of 56 mm. Several right valves exhibit some distortion and evidence for shell scarring from abutting oyster valves, suggesting competition for growing space amongst the spat (young oysters). The valves are also slightly oval, indicating a substrate of soft mud in their growing area. This is supported by infestation marks of *Polydora hoplura* on the shells, creating burrows over the outer valves and causing mud-filled blisters on their inner edges.

7.18.3 The two right valves from the common mussel (*Mytilus edulis*) were recovered from early medieval gully 610101 in Zone 3, Area 61. A single valve from a freshwater mussel (*Anodonta cygnea*) came from Romano-British ditch 300153 (context 300059) in Area 30. This species lives in slow flowing rivers or mud-lined lakes and is more commonly eaten by wild fowl than humans.

7.18.4 A single cockle valve (*Cerastoderma edule*) was recovered from post-medieval furrow 280008 in Area 28. A second example was found in ditch 550536 in Area 55, Zone 3.

7.18.5 Other shells from Area 55 comprise a burnt hinge fragment from the right valve of an oyster (*Ostrea edulis*) exhibiting infestation from *Polydora hoplura*, from Romano-British ditch F550508, and a juvenile common whelk (*Buccinum undatum*) from ditch 550532.

8 ENVIRONMENTAL EVIDENCE

8.1 Introduction

8.1.1 A total of 557 environmental samples were taken. Of these, four were monolith samples, taken through ditches, a palaeochannel and a pond, which were described and assessed for microfossil potential.

8.1.2 The 553 bulk sediment samples were taken from a range of layers and features such as cremation graves and related deposits, crop-dryers, ditches, pits, ponds, postholes, stakeholes and a trackway, and were processed for the recovery and assessment of the environmental evidence. Charcoal, plant remains (charred, mineralised, waterlogged) and terrestrial/aquatic molluscs recovered from the samples have been assessed. Samples from waterlogged deposits were also examined for invertebrates.

8.1.3 Additionally, 598 samples from inhumation burials were processed by wet-sieving for the recovery of artefacts and skeletal material.

8.1.4 The environmental samples break down into the following area groups:

Table 41 Environmental sample provenance summary

Site area (ordered from N–S)		No. of monolith Samples	No. of bulk sediment samples	Volume	Sampled feature types
Evaluation Trench					
Trenches 15–319 (Zone 2)		-	31	321.5	Ditches, pits, postholes and suspected cremation burial
Trenches 350–546 (Zone 3)		-	17	580	Ditches, pit
Mitigation Area	**Civil Parish**				
Area 5	Ulceby with Fordington	1	11	319	Ditches, pits, palaeochannel
Area 7	Langton by Spilsby	-	23	608.5	Ditches, pits, posthole
Area 35	Langton by Spilsby	-	22	217	Pits, postholes
Area 8	Langton by Spilsby	-	91	1576	Pits, ditches, postholes, kilns, solution hollow
Area 9	Dalby	-	13	415	Barrow ring ditch, pits, trackway
Area 36	Langton by Spilsby	-	-	-	-
Area 17	Langton by Spilsby	-	11	287	Ditches, pits
Area 33	Langton by Spilsby	-	5	123	Ditches, posthole
Area 18	Sausthorpe	-	40	805.9	Ditches, postholes, pits
Area 37	Sausthorpe	-	4	79	Ditch, furrow, pits
Area 19	Sausthorpe	-	3	96	Ditches
Area 20	Sausthorpe	-	-	-	-
Area 21	Raithby	-	2	36	Ditch, pit
Area 38	Raithby	-	13	394	Ditches
Area 22	Raithby	-	11	389	Ditches, pits
Area 11	Raithby	-	-	-	-
Area 12	Raithby	2	7	161	Ditches
Area 24	West Keal	-	-	-	-
Area 25	East Keal	-	-	-	-
Area 26	East Keal	-	-	-	-
Area 39	East Keal	-	1	36	Ditch
Area 28	East Keal	-	7	205	Ditches

Site area (ordered from N–S)		No. of monolith Samples	No. of bulk sediment samples	Volume	Sampled feature types
Area 34	East Keal	-	8	258	Ditches
Area 29	West Keal	-	6	156	Ditches, pits
Area 40	West Keal	-	36	1151	Buried soil, ditches, pits, postholes,
Area 30	Stickford	-	12	313	Ditches, pits
Area 41	Stickford	-	9	169	Cremation-related deposits, ditches, posthole
Area 31	Stickford	-	4	105	Ditches
Area 50	Holland Fen with Brotherford	-	-	-	-
Area 51	Amber Hill	-	-	-	-
Area 52	Swineshead	-	18	451	Ditches, pits, spread
Area 53	Swineshead	1	43	817.75	Cremation-related deposits, ditches, pits, pond
Area 54	Swineshead	-	9	121	Cremation-related deposits, ditch, posthole
Area 55	Swineshead	-	75	877.6	Ditches, natural features, pits, pond, postholes, spreads, stakeholes
Area 56	Swineshead	-	3	97	Animal burial, natural features
Area 57	Little Hale	-	2	62	Ditches
Area 58	Little Hale	-	-	-	-
Area 59	Little Hale	-	2	53	Ditches
Area 60	Donington	-	7	208	Ditches, palaeochannel
Area 61	Donington	-	7	248	Ditches
Totals		**4**	**553**	**11736.3**	

8.2 Aims and methods

8.2.1 The aim of this assessment is to determine the nature and significance of the environmental remains preserved at the site and their potential to address the project aims. This assessment follows recommendations from Historic England (English Heritage 2011).

8.2.2 Environmental sampling on site followed Wessex Archaeology's standard sampling strategy (Wessex Archaeology 2021a and 2021b).

Bulk samples

8.2.3 The size of the bulk sediment samples varied between 0.02 and 85 litres, with an average volume of approximately 21 litres. Some of the samples were pre-soaked in a solution of water and hydrogen peroxide to help break up the clay-rich sediment. The larger samples were processed by standard flotation methods on a Siraf-type flotation tank and the smaller samples were processed manually. The flot was retained on a 0.25 mm mesh, and residues were fractionated into 4 mm and 1 mm fractions. The artefact and skeleton samples were processed by wet-sieving on a 1 mm size mesh. The coarse fractions of the residues (>4 mm) were sorted by eye for artefactual and environmental remains and discarded. The environmental material extracted from the residues was added to the flots. A riffle box was used to split large flots and fine residues into smaller subsamples as appropriate.

8.2.4 The fine residue fractions and the flots were examined using a stereomicroscope at magnifications of up to x40 (Leica MS5, Brunel BMSZ). The preservation and nature of the charred plant and wood charcoal remains, as well as the presence of other environmental remains such as terrestrial and aquatic molluscs, and animal bone and insects (in cases of waterlogged (anoxic) preservation), was recorded. The presence of recent material within the flots was noted, including modern roots, modern seeds, earthworm eggs, and shells of the burrowing blind snail (*Cecilioides acicula*) which was introduced in the medieval period.

8.2.5 Remains were recorded semi-quantitively using an abundance scale: C = <5 ('Trace'), B = 5–10 ('Rare'), A = 10–30 ('Occasional'), A* = 30–100 ('Common'), A** = 100–500 ('Abundant'), A*** = >500 ('Very abundant'/Exceptional'). This is an estimation of the minimum number of individuals per taxa.

Plant remains

8.2.6 Plant remains were identified through comparison with modern reference material held by Wessex Archaeology and relevant literature (e.g., Cappers et al. 2006). Nomenclature follows Stace (1997) for wild taxa and Zohary et al. (2012) for cereals and other cultivated crops (using traditional names).

Wood charcoal

8.2.7 Wood charcoal from 100 (18%) of the bulk sediment samples was examined as part of the environmental assessment, covering as wide a range of feature types and phases as possible. The aims of the assessment were to provide information on the quantity of wood charcoal present, the preservation condition, and to provide preliminary information on the range of species present.

8.2.8 Wood charcoal was extracted from the ≥2 mm flot and residue fractions and the total volume (ml) of material was recorded for each sample. The fragments were initially assigned to broad groups through examination of the transverse section using a low-powered stereomicroscope at up to 40x magnification. Following this, a representative selection of fragments were identified through examination of the tangential longitudinal and radial longitudinal sections using a Kyowa ME-LUX2 microscope at up to 400x magnification. Identifications were undertaken through comparison with Wessex Archaeology's in-house wood charcoal reference collection and relevant texts (Gale and Cutler 2000; Hather 2000; Schweingruber 1990). Additional notes were made on growth ring curvature and other features (e.g., radial cracking, vitrification, reaction wood, etc.), where present. The term 'roundwood' is applied to fragments with strong growth ring curvature, whilst 'stemwood' is used for fragments with moderate to weak growth ring curvature. Oak (*Quercus* sp.) heartwood has been identified in fragments with weak growth ring curvature and frequent tyloses in vessels.

8.2.9 In general, between five to fifteen wood charcoal fragments were examined from each sample. Where possible, fragments which clearly derived from a range of different species were selected for identification. This assessment does not aim to provide a complete taxonomic list, although it has been noted where a sample contains a wide range of species. Nomenclature follows Stace (1997).

Monolith samples

8.2.10 The monolith samples were cleaned prior to recording and standard descriptions were used (following Hodgson 1997), including Munsell colour, texture, structure, and nature of boundaries.

8.3 Results

Bulk sediment samples

8.3.1 The results are presented in Volume 2, Appendix 3, Tables 46–81. The flots from the bulk sediment samples are of varying volumes, as were proxies for potential bioturbation such as modern/uncharred roots and seeds, the burrowing blind snail *Cecilioides acicula*, soil fungal sclerotia (e.g., *Cenococcum geophilum*), modern insects and earthworm eggs. Environmental evidence comprised wood charcoal, plant remains preserved by charring

and waterlogging, invertebrates (e.g., foraminifera, molluscs, insects, crustaceans) and animal bone.

8.3.2 Table 42, below, summarises the species identified from the wood charcoal assessment. There is very wide variation in the quantity of wood charcoal recorded across the scheme. In general, most of the samples contain small quantities of wood charcoal, often with less than 5–10 ml recorded in the >2 mm sieve fractions. For example, ≤5 ml of wood charcoal is recorded in 92% of the samples from Area 8 (n = 84) and in 76% of the samples from Area 55 (n = 57). In addition, the samples from several of the areas only contain trace quantities (<1 ml) of wood charcoal and this material has not been assessed (Areas 5, 9, 19, 39, 56, 57, 59, 60, and 61). Approximately 14% (n = 78) of the samples contain >10 ml of wood charcoal, with several charcoal-rich samples recorded in Areas 18, 38, 40, 41 and 55. In some of the other areas there are individual samples which are rich in wood charcoal (e.g., Areas 12, 17, 31, 33). Whilst most samples only produced small quantities of wood charcoal, the taxonomic diversity is often relatively high, with three or more species recorded in many cases.

8.3.3 The condition of the wood charcoal varies across the scheme, with mineral-coated material in poor to moderate condition recorded in samples from Areas 17, 18, 28, 29, 30, 33, 34, 38 and 41. However, preservation conditions within individual areas are often heterogenous and there is corresponding variation in the level of mineral-coating on the wood charcoal fragments. Mineral-coating is caused by fluctuating water-levels during burial and it can obscure microscopic wood anatomy, making it difficult to identify fragments to species. Well-preserved wood charcoal, with little evidence for mineral-coating, is recorded in the samples from Areas 7, 8, 12, 22, 31, 35, 37, 52, 53, 54 and 55.

Table 42 Species identified in the wood charcoal assessment

Common name (Scientific name)	Comments
Birches (*Betula* sp.)	-
Hazel (*Corylus avellana*)	-
Alder (*Alnus glutinosa*)	-
Alder/Hazel (*Alnus/Corylus*)	Poorly preserved fragments have not been differentiated.
Elder (*Sambucus nigra*)	-
Dogwood (*Cornus sanguinea*)	-
Heather-type (*Calluna vulgaris* tp.)	The small diameter stems (<5 mm) of heather species cannot be easily distinguished and this group may include closely related heath species (*Erica* spp.) and some other heather family (Ericaceae) species.
Field maple (*Acer campestre*)	-
Ash (*Fraxinus excelsior*)	-
Cherries (*Prunus* sp.)	This includes the native species bird cherry (*P. padus*), wild cherry (*P. avium*) and blackthorn (*P. spinosa*), as well as plum (*P. domestica*) which is an archaeophyte. No distinction has been made between these species.
Apple-type (Maloideae)	This sub-family includes a range of species which cannot be securely distinguished from their wood anatomy, including apples (*Malus* sp.), pears (*Pyrus* sp.), hawthorns (*Crataegus* sp.) and whitebeams (*Sorbus* sp.).
Willow-type (Salicaceae)	Includes willows (*Salix* spp.) and poplars (*Populus* spp.).
Oaks (*Quercus* sp.)	Includes the two native deciduous oak species, pedunculate oak (*Q. robur*) and sessile oak (*Q. petraea*). All identifications of oak refer to the native deciduous species.
Conifer	Unidentified fragments from a non-native coniferous species. The three native species have been excluded: Scots pine (*Pinus sylvestris*), juniper (*Juniperus communis*) and yew (*Taxus baccata*).

Evaluation Zone 2

8.3.4 The evaluation trench samples from Zone 2, undertaken both by Network Archaeology Ltd and Wessex Archaeology, provided generally poor results. One sample from trench 350 (near Area 31) in Stickford contained a rich deposit of wood charcoal. The overall environmental results from the evaluation are given in this report, with reference to the subsequent mitigation areas.

Evaluation Zone 3

8.3.5 The results from the samples taken during the evaluation have been described (Wessex Archaeology 2021c). The flots were generally small to moderate and there were high numbers of bioturbation proxies. Environmental evidence comprised plant remains preserved by charring, wood charcoal (often mineral-coated), terrestrial, freshwater and marine molluscs, animal bone and fish bone. Preservation is generally poor, with charred material mineral-coated in most cases. Overall, charred material was sparse, with the exception of one sample: a ditch in trench 482 (Area 55), was rich in plant remains.

Area 5 Ulceby with Fordington

8.3.6 The bulk sediment samples from this area contain high volumes of roots and modern seeds, with very little environmental material present. There are only very small quantities (<1 ml) of mineral-coated wood charcoal, and an indeterminate cereal (Triticeae) grain fragment from feature 500025. Terrestrial molluscs were frequently present, in varying volumes.

8.3.7 The environmental evidence from this area is very sparse, of little significance and is not representative of any particular period or activity.

Area 7 Langton by Spilsby

8.3.8 The charred plant remains from this area were generally sparse and poorly preserved. One sample, from slot 700255 in undated ditch 700295, was slightly more abundant in plant remains. These comprise cereals, including barley (*Hordeum vulgare*) and wheat (*Triticum* sp.), identified as spelt wheat (*Triticum spelta*) when preservation allowed. Other plant remains include sloe (*Prunus spinosa*), hazel (*Corylus avellana*) nutshell fragments, seeds from vetches (Vicieae) including a large-seeded specimen which could be from a cultivated taxon, ivy-leaved speedwell (*Veronica hederifolia*) and grasses (Poaceae, including a germinated brome, *Bromus* sp.). Other remains comprised roots and tubers/rhizomes, including onion couch/false oat grass (*Arrhenatherum elatius* ssp. *bulbosum*) swollen basal internodes and monocotyledon stems.

8.3.9 Abundant molluscs were retrieved from many samples, particularly in those from ditches 700297, 700296 and 700298 and roundhouse ring gully 700299.

8.3.10 Most of the samples contain small (<5 ml) quantities of wood charcoal, although the condition of the material is generally good. Wood charcoal was assessed from five samples which derive from prehistoric/Iron Age ditches and a pit. They contain mixtures of roundwood and stemwood from a range of species including hazel, oak, ash, field maple and apple-type. A few small twigs, probably from dogwood (cf. *Cornus sanguinea*), are recorded from slot 700255 in undated ditch 700295.

8.3.11 In general, the charred plant evidence from this area, particularly the presence of spelt wheat, could be indicative of residual remains from nearby settlement activity dating to the Late Iron Age/Romano-British in the wider area.

Area 35 Langton by Spilsby

8.3.12 Environmental evidence from the evaluation (trench 61) and mitigation area includes generally abundant terrestrial molluscs, small volumes of wood charcoal, variable quantities of charred plant remains (which are only present in some of the samples) and occasional animal bone fragments. Charred plant remains occur in small amounts across the site, with richer samples from postholes (posthole 350019 and posthole groups 350100 and 350190). The plant remains comprise barley and wheat (often spelt wheat but also emmer wheat, *Triticum dicoccum*) grains and chaff, together with other remains of wild plant taxa, such as a plum/sloe/cherry (*Prunus* sp.) endocarp, hazelnut shell fragments and seeds from vetches, grasses (including bromes), cleavers/bedstraws (*Galium* sp.), knotgrasses (*Polygonum* sp.), field madder (*Sherardia arvensis*) and goosefoots (Chenopodiaceae).

8.3.13 Wood charcoal was assessed from six of the samples from this area, including from a prehistoric posthole (350019) and various undated postholes (350094, 350097, 350170) and an undated pit (350127). The material is in good to excellent condition, with very little mineral-coating observed on the fragments. The sample from prehistoric posthole 350019 is dominated by oak stemwood, with radial cracking and vitrification observed on the fragments. Oak stemwood is also common in the other samples, although additional species are present including dogwood, willow-type, cherries, and possible apple-type. A few roundwood fragments in undated posthole 350097 are likely to derive from oak, although due to their small size these cannot be securely distinguished from sweet chestnut (*Castanea sativa*). Other features generally only contained very small quantities of wood charcoal (<1 ml).

8.3.14 The charred plant remains are indicative of plant processing activities likely dating to the Late Iron Age/Romano-British periods, due to the presence of spelt wheat and emmer wheat.

Area 8 Langton by Spilsby

8.3.15 The environmental material from this area varies in preservation condition from poorly to well-preserved. Bioturbation also affected some of the samples, but generally well-preserved sets of charred plant remains corresponded with few bioturbation proxies. Remains of terrestrial molluscs, charred insects and small animal bone were occasionally present in some of the samples in varying quantities.

8.3.16 The samples from natural solution hollows (800246 and 800218), some postholes (e.g., groups 800065, 800098, 800134, 800150, 800455, 800180 and 800259), some pits (e.g., 800186, 800480, 800371, 800394, group 800480) and some ditches (e.g., 800486, 800490) had generally low quantities of poorly preserved material, comprising a few, often mineral-coated, charred plant remains and wood charcoal fragments. Small to moderate numbers of terrestrial molluscs were occasionally present.

8.3.17 A number of deposits had well-preserved moderate to large numbers of remains, such as some pit/posthole groups (e.g., 800065, 800081, 800099, 800233 and 800489), some pits (e.g., 800029, 800089, 800025, 800038, 800289, 800382 and 800407), some ditches (e.g., 800486, 800487, 800489, 800490, 800491, 800493, 800495, 800496, 800497) and a crop-dryer or oven (800465).

8.3.18 With the exception of one sample from pit 800476, in pit group 800480, which contains a crab apple/apple (*Malus* sp.) seed and abundant hazel nutshell fragments, the range of remains was fairly consistent across the remainder of the samples, although preservation was variable. These included the remains of cereals, other domesticated plants and wild plants.

8.3.19 The cereal remains comprised grains and chaff (rachis) from barley (usually from hulled 6-row varieties) and both grains (occasionally germinated) and chaff (glume bases, spikelet forks) from hulled wheat (often identified to spelt or emmer/spelt wheat). Grains of naked/free-threshing wheats (bread/rivet wheat, *Triticum aestivum*/*turgidum*) were present in four samples, although the extremely good preservation of some suggests at least these are intrusive. In some cases, the grains were still in their glumes. Possible rye (cf. *Secale cereale*) grains were present in one sample. Remains of cereals that could not be determined to species/genus level (Triticeae) comprise grain fragments, basal rachis nodes, detached embryos and coleoptiles.

8.3.20 Other potential cultivated plants were flax (*Linum usitatissimum*) and pulses in the vetch tribe, comprising both large and small-seeded species. Large-seeded specimens include vetches/grass peas (Vicia/Lathyrus), garden pea/broad bean (*Pisum sativum/Vicia faba*) and garden pea (*Pisum sativum*).

8.3.21 The wild plants recovered were very diverse and included a large group of grasses from a diversity of taxa such as oats (*Avena* sp.), oats/bromes (*Avena*/*Bromus*), brome, rye-grass/fescues (*Lolium*/*Festuca*), heath-grass (*Danthonia decumbens*), meadow grass/cat's tails (*Poa*/*Phleum*), and awns and tubers from onion couch/false oat grass. Other well-represented taxa were the knotweeds/docks, with seeds from knotweeds (*Persicaria* sp.), black-bindweed (*Fallopia convolvulus*) and pale persicaria (*Persicaria lapathifolia*), and the seeds and tepals, in some well-preserved examples, of docks/sorrels (*Rumex* sp.), and seeds of the daisy family (Asteraceae), including species such as oxeye daisy (*Leucanthemum vulgare*) and scentless mayweed (*Tripleurospermum inodorum*). Other seeds were from goosefoots, clover/medick/trefoil (Trifolieae), species of the carrot family (Apiaceae), cleavers/bedstraws, common nettle (*Urtica dioica*), red bartsia/eyebrights (*Odontites/Euphrasia*), buttercups (*Ranunculus* subg. *Ranunculus*), mallow (*Malva* sp.), blinks (*Montia fontana*), henbane (*Hyoscyamus niger*), ribwort plantain (*Plantago lanceolata*), poppy (*Papaver* sp.), field penny-cress (*Thlaspi arvense*), yellow-rattle (*Rhinanthus minor*), fairy flax (*Linum catharticum*), the rose family (Rosaceae, including *Aphanes* sp.) and sedges (Cyperaceae and *Carex* sp.). Other remains include hazel nutshell fragments, plum/sloe/cherry (*Prunus* sp.) endocarps, wild radish (*Raphanus raphanistrum*) seed capsules and various remains (seeds, endocarp fragments, thorns) from indeterminate taxa.

8.3.22 Wood charcoal was assessed from 21 of the samples from this area. The samples derive from a range of prehistoric, Romano-British, post-medieval and undated features. The volume of wood charcoal varies, with comparatively high volumes of material recorded in the prehistoric pits whereas the Romano-British features generally only contain small quantities of quite fragmented (<4 mm) wood charcoal. The condition of the material is generally good to excellent, with very little mineral-coating observed on the fragments.

8.3.23 Three samples from prehistoric pit group 800480 contain between 5–50 ml of wood charcoal, with evidence for hazel, cherries and oak. In these samples, hazel appears to be the dominant species, and this is particularly evident in pit 800478.

8.3.24 Various samples from the Romano-British features contain wood charcoal from a range of species including oak, hazel, cherries, heather-type, ash, willow-type, alder and apple-type. Three samples from undated features (posthole 800204, pit 800025, pit 800407) contain a similar range of wood species, with evidence for oak, cherries, hazel, heather-type and willow-type) The wood charcoal derives from mixtures of stemwood and roundwood, although it is notable that roundwood is dominant in several of the samples.

8.3.25 Wood charcoal was assessed from unphased/?prehistoric postholes 800451 and 800453 (group 800455). Both are comparatively rich in oak, with the fragments deriving from stemwood/heartwood. This material possibly reflects the remnants of a charred post or other structural timber.

8.3.26 Most of the environmental evidence from this site area can be identified as crop-processing by-products from the Late Iron Age/Romano-British period and is indicative of domestic settlement activities. Some of the deposits, in which abundant hulled wheat chaff and germinated grains were identified, likely originated from crop-dryers: two of the sampled features may have been used as crop-dryers (800465 and 800089), while others likely contain rake-out material (e.g., pit 800382).

8.3.27 Some deposits may belong to earlier phases of activities on site. Pit 800476, part of group 800480, has charred plant remains consistent with possible Neolithic activity.

Area 9 Dalby

8.3.28 The samples from this area contain low concentrations of poorly preserved charred material, with low volumes of wood charcoal fragments. The plant remains were mineral-coated and comprised cereal grains, occasionally identified to wheat or barley, onion couch/false oat grass tubers and hazelnut shell fragments. They could be residual from processing activities in the area or intrusive due to a combination of recent agricultural activity and bioturbation.

8.3.29 Remains of terrestrial molluscs were generally abundant in the samples, and small animal/insect charred faecal pellets were present in one from barrow ring ditch 900066.

8.3.30 Wood charcoal is only present in very small quantities (often <1 ml), and no identifications have been undertaken on this material.

8.3.31 The environmental evidence from this area is not representative of any specific activity or time period.

Area 17 Langton by Spilsby

8.3.32 Poorly preserved, heavily mineral-coated, charred plant remains and wood charcoal was retrieved from this area (including trench 15). The sparse assemblage of charred plant remains include wheat, barley, grasses, vetches and bedstraw/cleavers, some of which are likely of recent date. Bone fragments and molluscs were present in moderate numbers in a small number of samples. The sample from pit 170025 comprised a large number of well-preserved uncharred plant remains, including seeds of rushes (*Juncus* sp.), duckweeds (*Lemna* sp.), sedges, species of the mint family (Lamiaceae), brambles (*Rubus* sp.), common nettle, sow-thistles (*Sonchus* sp.), goosefoots, species of the pink family (Caryophyllaceae), water-plantains (*Alisma* sp.) and birch (*Betula* sp.).

8.3.33 Wood charcoal is generally present in the samples in small quantities (< 5 ml), although one from probable natural feature 170039 (slot 170015) contains a significantly larger quantity of wood charcoal (125 ml). The condition of the wood charcoal is very poor, with heavy mineral-coating observed on most of the fragments. Wood charcoal was assessed from two of the samples from this area: that from probable natural feature 170039 (slot 170015) is dominated by oak heartwood, whereas the sample from post-medieval ditch 170041 (slot 170003) only contains a small quantity of oak and fragments of other species, not securely identified due to the poor condition of the fragments.

8.3.34 The assemblage is sparse, poorly preserved and of little significance, with no specific activities or periods indicated by the environmental remains.

Area 33 Langton by Spilsby

8.3.35 Environmental evidence in the samples from this area (including trench 94) was limited, restricted to a few charred plant remains, varying volumes of wood charcoal (including a rich sample from posthole 330031), a small number of molluscs and some uncharred/waterlogged plant remains (ditch 330042). These comprised common elder (*Sambucus nigra*), goosefoots, pinks, orache (*Atriplex* sp.), violet (*Viola* sp.), sedges, docks/sorrels and knotgrasses.

8.3.36 The samples contain small quantities of mineral-coated wood charcoal, with the exception of one sample from undated posthole 330031 which is comparatively rich. This contained charred, part-charred and uncharred (waterlogged) fragments of oak, which could reflect the degraded remnants of an *in situ* post.

8.3.37 The plant remains are present in very low concentrations, of little significance, and not representative of any specific activity or period.

Area 18 Sausthorpe

8.3.38 The environmental material from this area comprises charred plant remains, wood charcoal (often mineral-coated) and occasional remains of terrestrial molluscs. Waterlogged plant and invertebrate remains were present in one sample from the evaluation (trench 319).

8.3.39 The condition of the charred plant material varies from poor to moderately well-preserved, with some of the best preserved assemblages coming from pits 180313, 180315 and 180321, ditches 180141, 180617, 180108, 180098, 180221, 180280 and 180625, and posthole groups 180200 and 180484. The samples from stakeholes and construction cuts were generally poor. Charred monocotyledon stems were the only environmental material retrieved from stakeholes. Variable volumes of wood charcoal and charred plant remains were present but, overall, the taxonomic composition of the charred plant remain assemblage was fairly consistent, but notably different and less diverse than in other well-preserved assemblages, for example those from Areas 35 and 8.

8.3.40 The cultivated plant remains comprise cereals, including grains and chaff from barley and wheat (naked/free-threshing wheat, particularly bread wheat, *Triticum aestivum*), rye, and pulses such as garden peas, broad beans and vetches.

8.3.41 Wild plant remains include seeds from a diversity of grasses (comprising oats and meadow-grass/cat's tail), docks/sorrels, wild radish, hazel nutshell, buttercups (*Ranunculus* sp. and *Ranunculus* subgen. *Ranunculus*), elder (*Sambucus* sp.), knotweeds, goosefoots, sedges, crowfoots, species of the daisy family, oraches, species of the mustard family (Brassicaceae) and parsley-pierts, and stones from branched bur reed (*Sparganium erectum*).

8.3.42 Most of the samples contain small to moderate quantities of wood charcoal (<20 ml), with large quantities (>100 ml) only recorded in a few. The condition of the wood charcoal is often poor, although there is variability in condition between the features. Wood charcoal was assessed from ten of the samples from this area, including one from Anglo-Saxon gully 180617 and somefrom undated features (pits, postholes, ditches). There appears to be little difference in the composition of the samples, with a range of wood species recorded including oak, hazel, alder/hazel, ash, cherries and birch. The sample from Anglo-Saxon

gully 180617 is comparatively rich in wood charcoal (110 ml) and it contains a mixture of oak, cherries and hazel.

8.3.43 Overall, the plant evidence is consistent with domestic settlement activities dating to the medieval period or later.

Area 37 Sausthorpe

8.3.44 Environmental material in the samples from this area consists of often mineral-coated, charred plant remains and wood charcoal. Pit 370010 contains abundant charred plant remains comprising hazelnut shell fragments, bedstraw/cleaver seeds and buds, and wood charcoal. The pit also produced relatively high volumes of charcoal comprising mature oak heartwood, together with smaller quantities of hazel, alder/hazel and ash. However, this in very poor/poor condition due to heavy mineral-coating. In contrast, very small quantities of material were recorded in post-medieval/modern furrow 370021 and ditch 370028.

8.3.45 Pit 370010 was artefactually sterile, although the charred plant assemblage is consistent with a Neolithic chronology.

Area 19 Sausthorpe

8.3.46 The ditches sampled in this area (190075 and 190076) yielded poorly preserved environmental material, comprising a few charred plant remains, a very small amount of wood charcoal in one sample, and uncharred plant material of a likely recent in origin. The plant remains include charred cereal grains and seeds of daisy family species (including ox-eye daisy) and vetches, uncharred very fragmented vegetative plant material, and uncharred seeds of rushes, sedges, goosefoot, birch, elder and species of the mint family.

8.3.47 Wood charcoal is present in trace quantities (<1 ml) and there is too little material to warrant assessment.

Area 21 Raithby

8.3.48 Abundant mineral-coated wood charcoal fragments were preserved in the two samples from this area. Charred plant remains were present in one from Romano-British ditch 210017. These include abundant cereal grains and chaff of wheat (including spelt wheat) and barley, and seeds from a diversity of wild plant taxa such as docks/sorrels, knotweeds, grasses (including bromes and heath-grass), ribwort plantain, sedges, vetches (including large-seeded specimens) and species of the carrot family.

8.3.49 The wood charcoal from the sample was in a relatively poor condition, with mineral-coating on most of the fragments. Species identified comprise oak, birch and willow-type.

8.3.50 The assemblage is consistent with settlement activity dating to the Late Iron Age/Romano-British period due to the presence of crop-processing waste including spelt wheat.

Area 38 Raithby

8.3.51 Charred plant remains and wood charcoal were abundant in the samples from this area, particularly in ditches 380259, 380055, 380256, 380082 and 380261. In addition, waterlogged plant remains and invertebrates were found in ditch 380253 (slot 380155).

8.3.52 The charred plant remains comprise barley (grains and chaff), wheat (often identifiable as spelt wheat), and a diversity of remains from wild plant taxa. These include seeds of vetches, annual knawel (*Scleranthus annuus*), grasses (including oats, bromes, rye-grass/fescues, meadow grass/cat's tails, heath-grass), trefoils/medicks/clovers (Trifolieae),

docks/sorrels, sedges, knotweeds, blinks, buttercups, plantain, knapweeds bugle/germander (*Ajuga/Teucrium*), black bindweed, ox-eye daisy, and monocotyledoneous stems and tubers/rhizomes.

8.3.53 The waterlogged plant remains, from ditch 380253 (slot 380155), comprise hemlock (*Conium maculatum*), species of the mint family, common hawthorn (*Crataegus monogyna*), brambles, buttercups, docks/sorrels, sedges, elder, knotweeds, species of the daisy family (including thistles, *Carduus*/*Cirsium*, and sow-thistles), knotgrass (*Polygonum aviculare*), the pink family (including stitchwort, *Stellaria* sp., and campions, *Silene* sp.), goosefoots, common nettles, violets, henbane, cinquefoil (*Potentilla* sp.) and rushes. The sample also contains beetles (Coleoptera), caddisfly (Trichoptera) larval cases and water-flea (*Daphnia* sp.).

8.3.54 Wood charcoal is common to abundant in most of the samples, although the level of preservation is generally poor to moderate, with variable levels of mineral-coating on the fragments. A total of eight samples from this area were assessed for wood charcoal from a range of Romano-British and undated features. Small diameter heather-type stems are recorded, and these are abundant in some of the samples. Other taxa recorded comprise oak, alder, hazel, willow-type, ash, apple-type, cherries and field maple. Fragments of roundwood and small twigs are common throughout the samples.

8.3.55 The charred plant assemblage is consistent with Late Iron Age/Romano-British domestic crop-processing activities.

Area 22 Raithby

8.3.56 Charred plant remains and wood charcoal were present in all samples from this area, although in moderate numbers. The charred plant remains include wheat, spelt wheat, emmer wheat and barley. Broad beans and seeds from wild plants such as grasses, vetches, plantain and knotweeds were also noted.

8.3.57 Wood charcoal is present in small quantities (<10 ml) in all of the samples, although the fragments are generally in good condition. Two samples were assessed for wood charcoal, including one from Iron Age ring gully 220115 (part of a probable roundhouse) and one from undated ditch terminal 220064 (possibly part of ring gully 220117). The sample from 220115 contains a mix of species, with evidence for oak, ash, hazel, alder and cherries. A mixture of species is also present in the sample from 220064 including oak, cherries, and hazel. Many of the charcoal fragments in both features derive from roundwood, including small twigs.

8.3.58 The assemblage is representative of domestic settlement activities from the Late Iron Age/Romano-British period but is poorly preserved, probably indicating these activities took place at a distance from the sampled features.

Area 12 Raithby

8.3.59 Charred plant remains were present in varying quantities, with a particularly rich set from Iron Age ditch 120088. The remains included grains, chaff, seeds, nutshell, stems and tubers/rhizomes from a diversity of taxa, comprising wheat (often identified as spelt wheat), barley, hazel, wild radish, sedges, knotweeds, grasses, vetches, docks/sorrels and blinks.

8.3.60 Wood charcoal is generally present in small quantities (<5 ml), although two samples from Iron Age ditch 120088 (slots 120071 and 120059) contain slightly higher concentrations of material. Both samples from 120088 were assessed for wood charcoal. The sample from ditch slot 120071 contains a mixture of oak, cherries and other species, whilst the sample

from ditch slot 120059 produced numerous fragments of alder and a small quantity of oak stemwood. The wood charcoal is in good condition.

8.3.61 The charred plant remains are indicative of settlement activities consistent with a Late Iron Age/Romano-British date, due to the presence of crop-processing by-products with evidence of spelt wheat.

Areas 25 and 26 East Keal

8.3.62 No samples were taken in these excavation areas. Of the two samples taken from evaluation trench 120 (which overlapped with Area 25), one produced a very small quantity of wood charcoal, while a sample from trench 118 (which overlapped with Area 26) was found to contain a small number of charred plant remains and heavily mineral-coated wood charcoal fragments.

Area 39 East Keal

8.3.63 The single sample taken from ditch 390004 contains a small volume of mineral-coated wood charcoal, charred plant remains (including a grain of naked/free-threshing wheat, a large-seeded oat grain and a vetch seed) and moderate numbers of terrestrial molluscs. The wood charcoal has not been assessed due to its poor condition and the small volume of material present.

8.3.64 No information about site activities can be gained from the environmental evidence from this area. The charred plant remains may be indicative of a medieval or later date, as indicated by the naked/free-threshing wheat and possibly cultivated oat; however, the high numbers of bioturbation indicators noted in the sample could suggest this is likely to be intrusive and of modern date.

Area 28 East Keal

8.3.65 Small quantities of charred plant remains were retrieved in the samples from ditches in this area (280133, 280134, 280135 and 280136) and the evaluation (trench 123). The charred plant remains are sparse, poorly preserved and mineral-coated. They include a small but inconsistent range of species (e.g., both naked/free-threshing and hulled wheats) which probably have a residual or intrusive origin from activities dating to different periods. A small number of terrestrial molluscs was present in two of the samples.

8.3.66 Wood charcoal is present in small quantities (typically <10 ml), and many of the fragments are in poor condition due to mineral-coating. Two samples were assessed for wood charcoal. Both are from medieval ditch 280134 (slots 280105, 280118) and these contain mixtures of oak, ash, hazel, hazel/alder and cherries.

8.3.67 The presence of charred tubers/rhizomes and other wild plant seeds may be indicative of turf burning from the later prehistory onwards.

Area 34 East Keal

8.3.68 The assemblage of charred plant remains recovered from the ditches in Area 34 (and associated evaluation trench 41), are very similar to those previously described from other mitigation areas in East Keal. The plant remains could be indicative of turf burning, which could date to late prehistory onwards. Cereal remains are also present in some of the samples in small numbers, but their low density suggests they could be intrusive from more recent agricultural activity. Mineral-coating is present in both charred plant remains and wood charcoal.

8.3.69 Wood charcoal is present in small to moderate quantities and the material is in poor condition due to mineral-coating. Two samples were assessed for wood charcoal, one deriving from Late Iron Age–Early Romano-British ditch 340168 and one from post-medieval/modern ditch 340170. The sample from 340168 contains oak and field maple, whilst the sample from 340170 produced oak and unidentified fragments of other species. Due to the very poor condition of the wood charcoal from ditch 340170 it is difficult to taxonomically identify any fragments.

Area 29 West Keal

8.3.70 Environmental remains were generally very sparse (including in evaluation trenches 130, 132 and 300). Small quantities of poorly preserved wood charcoal are present in most of the samples (<10 ml). Charred plant remains are restricted to a very small volume of poorly preserved and mineral-coated specimens, with the exception of undated pit 290045. This sample contains abundant tubers/rhizomes, together with seeds of blinks, cinquefoil and heath-grass, and a higher density of wood charcoal (95 ml) which is moderately well-preserved, with evidence for oak, ash, cherries, hazel and other taxa.

8.3.71 The environmental assemblage is not representative of any particular period, although the deposit in pit 290045 could be indicative of the burning of turves.

Area 40 West Keal

8.3.72 Similar to previously described samples in this parish (Area 29 above), the charred plant remains (deriving from evaluation trenches 46 and 56 and mitigation features) are generally sparse and poorly preserved, some samples being sterile. Tubers/rhizomes dominate the samples, alongside a diversity of seeds from an array of taxa, including occasional cereals which, on account of their low density, are likely intrusive from recent agricultural activity. Waterlogged plant remains are present in two of the samples (ditch 400482 and pit 4623), but these are likely to be modern.

8.3.73 Most of the samples produced very small to small quantities of wood charcoal, with higher concentrations of material (>10 ml) only recorded in nine. Wood charcoal was assessed from seven of the samples from prehistoric, Late Iron Age–Early Romano-British, and undated features. The condition of the material is generally poor to moderate, with varying levels of mineral-coating observed on the fragments, and this has obscured the wood anatomy in some cases. Three samples from undated pit 400036 produced large charcoal-rich flots dominated by oak stemwood. In comparison, samples from prehistoric gully 400561, prehistoric ring gully 400150 and Late Iron Age-Early Romano-British pit 400559 contain a wider range of species with evidence for oak, cherries, ash, and alder.

8.3.74 Turf burning may be represented in this assemblage, but a specific period cannot be ascribed to it in the absence of other evidence.

Area 30 Stickford

8.3.75 Environmental remains from this area comprise variable varying numbers of charred plant remains, a small volume of poorly preserved mineral-coated wood charcoal, and occasional terrestrial and freshwater molluscs (very abundant in the sample from ditch 300153).

8.3.76 Most of the samples contain charred plant remains, with the exception of that from posthole 300092. The charred plant remains are present in varying quantities, with those from pits 300038 and 300086 and ditches 300152 and 300149 being particularly rich. The range of taxa is fairly consistent; the cereals comprise barley and wheat. The wheat is mostly identifiable as hulled wheat, with some specimens identifiable as spelt wheat when species

level identification has been undertaken. However, occasional free-threshing wheat remains (grains and chaff) are also present in some of the samples. Other taxa include cultivated species such as garden peas/broad beans and the remains of wild plants such as hazel nutshell fragments. Most of the wild plant remains correspond to monocotyledonous stems, tubers/rhizomes and other seeds which may be present in turves (e.g., sedges, grasses, blinks).

8.3.77 The samples generally contain small quantities of wood charcoal (<10 ml) and the condition of the material is mostly poor due to mineral-coating. Wood charcoal was assessed from three of the samples, two from Romano-British ditches (300149 and 300153) and one from an undated pit (300086). The sample from ditch 300153 contains a moderate quantity of wood charcoal (20 ml), with evidence for a range of species including oak, cherries, birch and alder, whilst ditch 300149 contains a small quantity of poorly preserved wood charcoal with evidence for oak and other unidentified species. The sample from undated pit 300086 contains highly fragmented wood charcoal from oak and other unidentified species.

8.3.78 The charred plant remain assemblage is generally consistent with Late Iron Age/Romano-British activity, due to the presence of hulled wheats including spelt wheat, although some of the samples do not contain taxa indicative of any particular phase. Some samples suggest turf burning, which could date to late prehistory onwards.

Area 41 Stickford

8.3.79 Environmental material from this area comprises small numbers of charred plant remains, varying volumes of wood charcoal, and waterlogged plant and invertebrate remains.

8.3.80 The charred plant remains include a few cereal grains and occasional wild plant seeds, stems and tubers/rhizomes.

8.3.81 The samples from ditch 410021 and its recut 410023 contain waterlogged plant material (nettles, elder, brambles, birch, species of the mint family, rushes, docks/sorrels, species of the goosefoot family, buttercups, sedges and species of the pink family) and invertebrates (Diptera, Coleoptera and Acari). Other ditches in the area (410120 and 410121) were only intermittently below the water table and therefore no waterlogged material has survived, due to degradation from repeated wetting and drying. The variable amounts of wood charcoal preserved are mineral-coated, further indicating intermittent waterlogging.

8.3.82 A large volume of wood charcoal was retrieved from redeposited cremation-related deposit 410050 in prehistoric gully 410125, together with a small number of monocotyledonous stems and tubers/rhizomes.

8.3.83 Wood charcoal is present in small to moderate quantities and the material is in poor condition due to mineral-coating. Two samples were assessed, one from prehistoric ditch 410124 and one from prehistoric gully 410125, which also contained the redeposited cremated human bone. The sample from 410124 contains a moderate quantity (50 ml) of heavily mineral-coated wood charcoal from oak, ash, alder/hazel and cherries. In comparison, the sample from gully 410125 contains abundant wood charcoal (250 ml), although the fragments are in extremely poor condition and this has obscured the anatomical features.

8.3.84 The waterlogged material is likely to be of post-medieval or modern origin. The charred plant remains are very sparse and of limited significance. The presence of free-threshing wheat in ditch 410023 is consistent with a medieval or later date.

Area 31 Stickford

8.3.85 No environmental material was retrieved from ditch 310021 but charred plant remains and wood charcoal were present in the three samples from ditch 310170 (including the section investigated in evaluation trench 140). The charred plant remains comprise emmer wheat grains and chaff, hulled barley, grasses and hazel nutshell. Well-preserved wood charcoal is present in small quantities in a sample from prehistoric ditch 310170, with evidence for ash and alder.

8.3.86 Approximately 400 m to the south-west of Area 31, a pit (35010) investigated during the evaluation (trench 350) contained a large amount of mineral-coated charcoal, including roundwood.

8.3.87 The charred plant remains are suggestive of settlement activities of a broadly prehistoric date.

Area 50 Holland Fen with Brotherford

8.3.88 The six samples taken during the evaluation (trenches 426, 427 and 428) produced a small quantity of charred plant remains, wood charcoal and molluscs (terrestrial, freshwater). No deposits suitable for sampling were identified during the mitigation.

Area 52 Swineshead

8.3.89 Generally low volumes of wood charcoal, charred plant remains and terrestrial molluscs were present in the samples from both the evaluation (trenches 470, 471 and 472) and the mitigation excavations, with many samples being sterile. The charred plant material comprises sparse cereal grains (both hulled wheats and barley) and monocotyledonous stems and tubers/roots/rhizomes. Grains of free-threshing wheat were observed in a few of the samples. Many of these are in very good condition, which indicates they are intrusive.

8.3.90 There are consistently small quantities of wood charcoal in the samples. Four were assessed, from two Romano-British ditches (520152 and 520153), an undated pit (520016) and an undated spread (520008). The condition of the wood charcoal is good, and the four samples are similar in composition, with evidence for alder and willow-type. Some of the wood charcoal derives from roundwood.

8.3.91 The assemblage from this area is not representative of any particular activity or time period and is therefore of limited value.

Area 53 Swineshead

8.3.92 The environmental material from this area (including evaluation trench 477) comprises charred plant remains, charcoal, aquatic molluscs, foraminifera and ostracods.

8.3.93 The charred plant remains are generally sparse, but slightly richer assemblages came from ditches 530069 and 530308 in the south of the area, and from pits 530202, 530209 and 530238 and ditch 530296 in the north. Abundant uncharred seeds of mostly duckweeds and rushes are present, but these are considered intrusive due to the nature of the deposits.

8.3.94 The remains from the southern ditches are dominated by wild plant taxa, such as knotweeds/knotgrass, sedges, grasses, buttercups, branched bur reed, trefoils/medicks/clovers and indeterminate seeds, with a few fragments of cereals (including naked/free-threshing wheat grain) in one sample.

8.3.95 The deposits in the north of the area also contain wild plant taxa, such as monocotyledoneous stems, and seeds from grasses, docks/sorrels and knotgrasses, pinks, sedges and goosefoots. Occasional cereal remains include culms and naked/free-threshing wheat and barley grains.

8.3.96 Abundant foraminifera and wood charcoal were retrieved from the cremation-related deposit in feature 530132.

8.3.97 Wood charcoal is generally present in very small quantities, with no fragments (>2 mm) recorded in many cases. Five samples were assessed, including from a Romano-British ditch (530069), an undated cremation-related deposit (530132/530133), and two undated pits (530202 and 530238). The wood charcoal is in good condition, and a similar range of species are recorded in all of the samples, with evidence for alder and willow-type (including roundwood). Ash is present in the sample from undated pit 530202. The samples from cremation-related deposit 530133 in feature 530132 contain fragments of alder which may have been worked.

8.3.98 The presence of naked/free-threshing wheat in the samples from this area is suggestive of medieval or later activity; however, few specimens were recovered and could be intrusive. The presence of aquatic indicators such as ostracods, molluscs and the abundance of foraminifera is indicative of possible flooding or marine regression events, which may have been followed by the deliberate use of brackish water in saltmaking, for example.

Area 54 Swineshead

8.3.99 Environmental remains from this area were restricted to foraminifera, as well as wood charcoal from cremation grave 540003 which contained unurned burial 540004. The wood charcoal is in good condition, with a moderate quantity of material recovered (45 ml). There are large fragments of alder roundwood, including some that contain abundant insect holes and possible insect eggs, which could indicate the use of deadwood/rotten wood.

Area 55 Swineshead

8.3.100 Charred plant remains, wood charcoal, foraminifera, as well as fish bones, were present in the samples.

8.3.101 Abundant charred plant remains were retrieved from pit 550344, pond 550022, stakeholes 550158 and 550164 (both part of stakehole group 550528), and ditches 550508, 550532, 550533, 550534 and 550538. This is consistent with the evaluation results, in which ditches 48210 and 48206 (trench 482, which crossed pond 500022) were found to contain relatively large numbers of charred grains, chaff, and other taxa (Wessex Archaeology 2021c).

8.3.102 The charred plant remain assemblage is, overall, consistent, and includes cereals such as wheat (mostly spelt wheat) grains and chaff (glume bases and spikelet fork fragments), barley grains and chaff (rachis segments), and indeterminate cereal culm internodes. There are some detached embryos, coleoptiles and wrinkled grains. Other taxa present include a diversity of grasses (such as oats/bromes, rye grass/fescues and meadow grass/cat's tails), mayweeds, buttercups, goosefoots, trefoils/medicks/clovers, field madder, docks/sorrels, plantains, red bartsia/eyebrights and sedges. Vetches are also present, some being large-seeded specimens which may be large vetches, garden peas and/or broad beans.

8.3.103 The charred plant remain assemblage is consistent with Late Iron Age/Romano-British settlement activities. Crop-dryers (beyond the area of excavation) for the malting of grain are potentially indicated by the germinated (wrinkled) spelt wheat grains, as well as the detached embryos and coleoptiles, which are considered proxies for germination.

8.3.104 Wood charcoal is present in widely varying quantities, with most features producing small quantities (<10 ml). Some of the samples are exceptionally rich in well-preserved wood charcoal, including several from Romano-British ditch 550508. In total, wood charcoal has been assessed from 16 of the samples from this area. These derive from a range of Romano-British and undated features. The condition of the charcoal is generally very good, with very large fragments present (>30 mm diameter) in some cases. However, some of the fragments are mineral-coated and friable, making identifications to species difficult. A wide range of wood species have been recorded including oak, ash, field maple, hazel, elder, apple-type and willow-type. The charcoal fragments derive from mixtures of roundwood and stemwood. One sample from ditch 550508 (slot 550464) contains abundant stemwood fragments, with large numbers of insect holes, from an unidentified conifer species. Whilst the conifer species has not been identified further, this wood does not derive from the three coniferous species native to Britain (juniper, yew, Scots pine). The conifer fragments could derive from imported species such as cedar (*Cedrus* sp.), fir (*Abies* sp.), spruce (*Picea* sp.) or larch (*Larix* sp.). Other samples assessed for wood charcoal contain material in variable condition, ranging from poor to good, with evidence for alder, willow-type, oak and ash.

Area 56 Swineshead

8.3.105 No environmental evidence of significance was retrieved from the evaluation (trench 493) or mitigation samples in this area, with only abundant terrestrial molluscs present in animal grave 560058 and a trace amount of wood charcoal in natural feature 560014.

Area 57 Little Hale

8.3.106 Abundant fish bone, terrestrial and freshwater molluscs, and waterlogged plant and invertebrate (insect, crustaceans) remains were present in the sample from a ditch (570041) in this area. The plants include aquatic species such as algae (Characeae), rushes, water-plantain, duckweed and crowfoots, while other nitrophilous taxa are represented by the goosefoot family and nettle. The evidence from ditch 570041 is consistent with its presumed post-medieval/modern chronology.

Area 59 Little Hale

8.3.107 The material from roundhouse ring gully 590097 is poorly preserved and consists of a few mineral-coated wood charcoal fragments and very fragmented uncharred/waterlogged plant material, including seeds from rushes, duckweeds and docks/sorrels, and insects.

8.3.108 This assemblage is not representative of any particular period or activity and has little interpretative value.

Areas 60 and 61 Donington

8.3.109 Small volumes of waterlogged plant remains, charred plant remains, fish bone and wood charcoal were present in the samples from these areas. However, terrestrial and fresh-water molluscs, as well as foraminifera, were generally abundant. Occasional marine molluscs and insects were occasionally present. Some of the remains are likely recent and therefore have little significance.

Monolith samples

Area 5 Ulceby with Fordington

8.3.110 The sediment sequence in the monolith sample through palaeochannel 500094 (Vol. 2 Appendix 4 Table 82) shows a sequence of clay silts with mineral-coating and a diffuse lower boundary.

Area 12 Raithby

8.3.111 The monolith sample from ditch 120039 (Vol. 2, Appendix 4, Table 83) shows a dark greyish brown silty clay overlain by a dark yellowish brown sandy silt with occasional lithics and a clear lower boundary. The monolith sample from ditch group 120088 (Vol. 2, Appendix 4, Table 84) shows a series of silt units with some organic inclusions (charcoal), some lithics and sharp/abrupt lower boundaries.

Area 53 Swineshead

8.3.112 The sediment sequence in the monolith sample through pond 530220 (Vol. 2, Appendix 4, Table 85) shows a series of silt units. These units contain some organic inclusions and mineral-coating. The upper units show abrupt lower boundaries and the lower unit shows laminations.

8.4 Discussion

Bulk samples

8.4.1 Significant assemblages of charred and waterlogged plant remains, wood charcoal, molluscs and insects have been retrieved from a number of excavation areas.

8.4.2 Particularly interesting assemblages of charred plant remains have been found in the parishes of Langton by Spilsby (Areas 35 and 8), Sausthorpe (Areas 18 and 37), Raithby (Areas 21 and 38), East Keal (Areas 28 and 34) and West Keal (Areas 29 and 40), Stickford (Area 30) and Swineshead (Areas 53 and 55). The material from these deposits has the potential to provide information on plant exploitation and crop-processing activities, past land uses, feature functions and phasing, as well as address research priorities such as the timing of the introduction of specific crops (e.g., spelt wheat, free-threshing wheat varieties) in the East Midlands. The remainder of the assemblages are of little significance.

8.4.3 Wood charcoal is recorded in varying quantities in samples taken across the scheme, with significant assemblages recorded in Areas 7, 8, 12, 22, 30, 31, 35, 38, 40, 52, 54 and 55.

8.4.4 Well-preserved assemblages of molluscs, waterlogged plant remains and insects have been recovered from several sites, including those in the parishes of Langton by Spilsby (Areas 7 and 8), Dalby (Area 9), Donington (Area 61) and Raithby (Area 38). These remains have the potential to provide further information on the palaeolandscape and environmental changes.

Prehistoric

8.4.5 Possible earlier prehistoric (Mesolithic–Early Bronze Age) deposits have been tentatively identified in Langton by Spilsby (Area 8, pit 800476, part of group 800480) and Sausthorpe (Area 37, pit 370010). The charred plant assemblage from these features is characteristic of the exploitation of seasonally predictable wild plant resources with high nutritional value, often found in deposits from late hunter-gatherers and early agricultural societies (Stevens et al. 2022). Although these resources continued to be exploited in more recent periods, the lack of domestic plant remains are suggestive of earlier chronologies. However, other well-preserved deposits in the area contain cereal grains (e.g., pit 800332, also part of group 800480). Clarification on the precise chronology of these features through direct radiocarbon dating is required because evidence for the exploitation of plant resources in the earlier prehistoric periods is particularly scant for the Midlands (Carruthers and Hunter Dowse 2019).

8.4.6 Very few of the samples assessed for wood charcoal can be securely dated to the prehistoric periods. In pit group 800480, potentially Neolithic in date, the wood charcoal is

well-preserved and there is evidence for oak, cherries and hazel. It is notable that samples from these pits contain charred hazel nutshell fragments and hazel appears to be the dominant species in the charcoal assemblage. Two samples from pit 370010 similarly contain oak and hazel, although there is also evidence for ash. Oak and hazel are often the main species recorded in wood charcoal assemblages dating from the Mesolithic to Bronze Age periods, whereas ash became more common in later periods as environments became increasingly open in character (cf. Woodbridge et al. 2022). It seems likely that the wood charcoal in these features reflects discarded fuel debris from hearths associated with food preparation.

8.4.7 Later prehistoric (possibly Middle Bronze Age to Late Iron Age) archaeobotanical deposits have been identified in ditch 310170 at Stickford (Area 31). The combination of cereal grains, chaff and wild plant remains is characteristic of domestic crop exploitation practices. Emmer wheat and hulled barley were the main cultivated crops in this period. Emmer wheat remained the main wheat cultivated in the Midlands until the Iron Age, after which it was gradually replaced by spelt wheat, which was introduced in the Middle Bronze Age in Southern England (Carruthers and Hunter Dowse 2019). The absence of spelt wheat in the sample from ditch 310170 is potentially significant. While the assemblage of charred plant remains is only modestly sized, it is the only relatively well-preserved cereal deposit identified potentially dating to a period before the introduction of this crop. A precise date for this assemblage through direct radiocarbon dating would help ascertain its significance, for understanding developments in arable agriculture and resource exploitation in the area and period; Middle Bronze Age sites are not frequent in the East Midlands but Late Bronze Age sites tend to be more common and are well-studied (Carruthers and Hunter Dowse 2019).

8.4.8 Spelt wheat starts to be identified in archaeobotanical assemblages from sites in the Midlands from the Bronze Age (Carruthers and Hunter Dowse 2019), but this does not become a dominant crop until the Late Iron Age/early Romano-British period. Ascertaining secure dating evidence for the introduction of spelt wheat in this region is an important research priority (Carruthers and Hunter Dowse 2019). In addition, research into earlier Bronze Age sites is often hampered by continuity in settlement locations, with the evidence from the Romano-British period often obscuring earlier deposits. Therefore, this assemblage may be able to contribute to these wider research objectives.

8.4.9 Wood charcoal from a range of other prehistoric (mainly Iron Age) features was present in varying quantities and the condition of the material ranges from poor to good. Many of the samples contain relatively consistent mixtures of species, with oak and ash being routinely recorded, often in association with hazel, alder, apple-type, field maple and cherries. This includes the samples from Area 7 (pit 700171, pit 700024, ditch 700297 and ditch 700302), Area 22 (ring gully 220115), Area 31 (ditch 310170), Area 40 (gully 400561, ring gully 400150) and Area 41 (ditch 410124). The common occurrence of ash, often in association with alder (e.g., ditch 310170), is notable. Ash is a light-demanding species, and it commonly forms a component of riverine woodlands, particularly in association with alder on moist or very wet soils (Hall et al. 2004). Within these riverine woodlands, other species such as oak, hazel and cherries can be found on drier ground. Other wood species recorded are similarly associated with open conditions (e.g., cherries, apple-type, field maple), and they suggest that the environment was becoming increasingly open by the Iron Age (Woodbridge et al. 2021). One sample from a cremation-related deposit in gully 410125 in Area 41 contains abundant wood charcoal, although the fragments are in extremely poor condition due mineral-coating.

8.4.10 Most of the wood charcoal is likely to reflect domestic fuel debris, and assemblages such as these are well-suited to reconstructing the composition of past woodlands (cf. Asouti and Austin 2005). It would be of interest to map changes in the composition of the woodland across different areas of the scheme using the wood charcoal evidence, and to compare this with available pollen records from the area.

Late Iron Age/Romano-British

8.4.11 The assemblages of charred plant remains from the parishes of Langton by Spilsby (Areas 35 and 8), Raithby (21, 38, 22 and 12), Stickford (Area 30) and Swineshead (Area 55) are representative of plant exploitation and activities, largely crop-processing, broadly consistent with a Late Iron Age/Romano-British chronology.

8.4.12 Many of the deposits of hulled wheat contain large quantities of cereal remains, particularly spelt wheat, including some evidence for germination (e.g., wrinkled grains, damaged embryonal parts of grains, coleoptiles and detached embryos). Germination may occur accidentally, either in the field prior to collection or during storage, and therefore evidence for germination can be found in deposits of any chronology. However, there is often an association between germinated spelt wheat and late Romano-British crop-dryers which may have been used for drying for storage or malting (e.g., van der Veen 1989). Crop-dryer assemblages vary in composition depending on the position of the remains within the crop-dryer, the type of activity they originate from (e.g., crop-drying or malting), and the subsequent uses of the structures (some may have been multi-purpose). However, these assemblages are generally characterised by the abundance of chaff (glume bases, usually found in high proportions in the flue) and germinated grains (often found in higher proportions in the drying chamber), while mixtures of both types of remains (and others) can generally be found in the stoke pit. The identification of typical crop-dryer assemblages has led to the tentative identification of possible truncated crop-dryers and rake-out by-products disposed in associated features (e.g., 800465, 800089 and 800382 in Area 8, and 550158 in Area 55).

8.4.13 Naked/free-threshing wheat appears alongside spelt wheat in some of the samples (e.g., Langton by Spilsby – Area 8, and Swineshead – Areas 53 and 55). It would be interesting to radiocarbon date these deposits and grains. The introduction of free-threshing wheat varieties (bread or rivet wheat) to the South-East dates to the Early Neolithic period (Carruthers 2019) but there is no evidence for their spread to the Midlands around that time (Carruthers and Hunter Dowse 2019), with occasional remains of free-threshing wheat in early deposits remaining undated or considered probably intrusive (as proposed for some of the remains across the excavation areas here, such as Area 8 in Langton by Spilsby and Areas 52 and 53 in Swineshead). The introduction of free-threshing wheat varieties to the Midlands may potentially start from the Iron Age (Carruthers and Hunter Dowse 2019), however doubts have been raised (Campbell and Straker 2003). Bread wheat is associated with the Roman army, but it does not become a dominant crop until the Early Medieval period (see below).

8.4.14 The vast majority of the samples assessed for wood charcoal are Romano-British in date, and it is likely that many of the unphased samples can also be dated to this period. A wide range of wood species have been recorded in this assessment, and this list would be expected to increase as further material is examined. Oak is the most widely occurring species, although other species have been routinely recorded including ash, hazel and cherries. The samples indicate that a range of different habitat types were exploited for fuel including heathlands, wet woodlands (possibly riverine woods) and open scrub/hedgerows. The local environment is likely to have been relatively open in character by this period, based on the frequent occurrence of light-demanding species, although there were probably

denser stands of woodland in some areas. The evidence for heather-type stems is particularly notable, especially in the samples from Area 8. This suggests that heathland habitats had become well established by the Romano-British period, probably on the superficial acidic deposits (e.g., sand) overlying the chalk bedrock. Lowland heathlands were formerly widespread in Lincolnshire although this habitat is now rare and fragmented (Chatters 2021). Heathlands began developing during the Bronze Age following woodland clearance, although these habitats did not become widespread until the Iron Age/Romano-British periods, if not later.

8.4.15 Most of the wood charcoal is likely to derive from fuel debris generated from domestic hearths, with this material subsequently becoming re-deposited and re-worked into refuse pits and ditches. Domestic assemblages such as these tend to contain mixtures of species and high proportions of small diameter roundwood (i.e., small branches and stems). A small number of the assessed samples potentially contain fuel debris associated with salt production, including those from undated pits 530202 and 530238 in Area 53. These contain evidence for wood species which are typical of wet woodland environments (e.g., ash, alder, willow-type).

8.4.16 The very low concentrations of wood charcoal in many of the samples could indicate that fuels other than wood were used, such as turves or peat. The burning of turves and/or peat would account for the presence of heather-type stems, monocotyledon stems, and species characteristic of damp, heathland and acidic grassland habitats such as heath-grass, sedges and blinks (Hall 2003; Church et al. 2007). Heathland habitats appear to have been widely exploited as fuel sources in the Iron Age and Romano-British periods in central and northern England (Carruthers and Hunter Dowse 2019; Hall and Huntley 2007).

8.4.17 The exceptionally high densities of wood charcoal from ditch 550508 in Area 55 is unusual, and the origin of the material within this feature is currently unclear. The samples contain wood from a wide range of species, including very large fragments of conifer charcoal which derive from a non-native species. Imported wood has been widely identified in Romano-British sites, and this material could derive from barrels, other artefacts, or imported timber which has subsequently become charred (Gale and Cutler 2000). Further examination of the wood charcoal to obtain a secure identification of the conifer species would provide additional information on the character of this assemblage. Cedar (*Cedrus* sp.), fir (*Abies* sp.), spruce (*Picea* sp.) or larch (*Larix* sp.) have been identified at Romano-British sites elsewhere.

Anglo-Saxon and Medieval

8.4.18 The charred plant remains from Area 18 in the parish of Sausthorpe are consistent with agricultural processing activities dating to the early medieval (Anglo-Saxon) period on account of the abundance of free-threshing/naked wheat remains and rye.

8.4.19 The earliest dated occurrence of free-threshing bread-type wheat remains in the Midlands dates to the Iron Age (however, see above, Campbell and Straker 2003), but the widespread cultivation of free-threshing wheat in this period is unclear (Carruthers and Hunter Dowse 2019). The spread of free-threshing wheat (likely bread wheat) across Britain seems to only occur during the Romano-British period, in association with military sites. Bread wheat only becomes established as a major crop in the early medieval period, while rivet wheat possibly appears as early as the 8th century and its presence is increasingly recorded (but never widespread) in the 12th to 14th centuries (Carruthers and Hunter Dowse 2019).

8.4.20 The cultivation of rye in the Midlands, as in the rest of Britain, dates at least to the early medieval period (Carruthers and Hunter Dowse 2019) although occasional remains of rye have been found in earlier deposits, where it is likely an arable weed. However, there are some occasional examples of, likely early, cultivation of the crop in the Romano-British period (Robinson 2002).

8.4.21 In summary, the co-occurrence of free-threshing wheat with rye is a likely reliable indicator of chronology for otherwise undated deposits; however, radiocarbon dating confirmation should be sought to verify this assumption and avoid circular arguments. This would help address research questions regarding the introductions of these crops, as well as clarify the site phasing and dating of the on-site agricultural activities.

8.4.22 Very few of the samples assessed for wood charcoal are currently phased to the medieval period. One sample from ditch 180617 in Area 18 produced a large quantity of wood charcoal from oak, hazel and cherries, whilst two samples from ditch 280134 in Area 28 contain oak, ash, hazel and cherries. The condition of the wood charcoal from these areas was generally poor in comparison to earlier features. Due to a lack of evidence, it is not currently possible to provide information on the nature of the local environment and fuel exploitation practices during these periods.

Uncertain

8.4.23 A number of generally poorly dated assemblages with similar characteristics have been identified from a few of the sites, such as Areas 28 and 34 (East Keal), Areas 29 and 40 (West Keal) and Area 30 (Stickford). The charred plant remains contain large volumes of roots, rhizomes and tubers, and seeds from the same array of taxa, mostly grasses (including heath-grass) and sedges. These samples are largely undated, although chronologies ranging from prehistoric to modern have been suggested on the basis of various factors, with the presence of lowland heathland indicators suggesting a Bronze Age or later date for some. The charred plant remains could be consistent with burning turves cut from acid grassland/heathland or peat as fuel (Hall 2003; Church et al. 2007), or burning as a land management practice. Turves could be cut and brought to sites for using as fuel or a range of other possible uses (thatching, bedding), which could lead to their accidental charring.

8.4.24 A number of sites (e.g., Areas 53–55 and 60–61) contain several environmental indicators of brackish or marine water. This could be consistent with the use of the area for saltmaking, as suggested by the briquetage evidence; these indicators can also be suggestive of marine regression events. There is evidence for marine incursions in south-east Lincolnshire in the Romano-British period (Simmons 2022). Additional dating evidence would help understand the changes in the landscape in this area.

8.4.25 Wood charcoal fragments from currently undated cremation-related deposits were assessed from Areas 53 and 54. The two samples from cremation-related deposit 530133 in feature 530132 contain evidence for alder and willow-type, whilst one sample from unurned cremation grave 540003 produced large fragments of alder with evidence for insect degradation. The charcoal is likely to reflect fuel used in the cremation pyre, and the similarity of the sample compositions suggests that these cremation-related deposits could be contemporary with one another. Alder and willow are considered to be poor fuel woods for use in cremation pyres since they burn slowly at low temperatures, especially in comparison to other taxa such as oak, which is more commonly associated with cremations (O'Donnell 2016). It is generally accepted that the relative proportions of different taxa in wood charcoal assemblages will mirror their availability in past woodlands, and it is likely

that alder and willow-type were growing within wet woodland environments in the local landscape (cf. Asouti and Austin 2005).

Monolith samples

Prehistoric

8.4.26 Ditch 120039 shows a layer of colluvium capping a ditch fill. The upper unit, identified on site as colluvium, has a gradual lower boundary which suggests the sediment was deposited over a long time. It may have been the result of several episodes of hillwash/soil creep that cannot be seen individually in the monolith sample.

8.4.27 The monolith sample from ditch 120088 contains material (charcoal) that indicates it was open for at least part of its usage. The presence of charcoal in a monolith sample such as this usually indicates anthropogenic activity in the immediate area. The environmental material from the bulk samples from this ditch shows variable preservation. One sample, from context 120069, which is a later fill of the ditch, contains a high abundance of charred plant remains, whereas the bulk sample from an earlier fill, context 120077, contains few environmental remains and these are poorly preserved. As with the presence of charcoal in the monolith sample, the environmental remains in the bulk sample are indicative of human activity in the area. The abrupt lower boundary of the uppermost unit indicates that this was a rapid deposition of material, suggestive of the feature going out of use.

Undated

8.4.28 Palaeochannels will have a larger catchment area than discrete features such as pits and postholes. Sediment accumulates over time through water activity and incorporation of material from the surrounding area (bank material, surface runoff). The organic material in the monolith sample from palaeochannel 500094 indicates a period of stability, which allowed vegetational growth, either in the channel itself or along the edges. This was subsequently submerged, or incorporated into the channel, along with sediment.

8.4.29 The mineral-coating in slot 530216 across pond 530220 indicates fluctuating water levels in the feature over time, and the laminations are evidence of periodic deposition. The environmental bulk sample from the lowest fill (530217) contains a high abundance of freshwater mollusc remains, which supports the interpretation of this feature as a pond.

9 RADIOCARBON DATING

9.1.1 Six radiocarbon dating samples were submitted to refine the chronology of the relevant feature groups, to gain a better understanding of the phases of activity in different excavation areas, and to inform the assessment and future dating strategy.

9.2 Materials and methods

9.2.1 Five of the six radiocarbon samples were animal bone samples and one was a human bone. Sample selection was undertaken by the project specialists in discussion with the post-excavation lead and project dating specialist. The samples were selected considering stratigraphic and technical criteria, including the nature of the available samples, their potential for carrying associated offsets, and the association between the samples and the event for which a date was required, following Waterbolk (1971) and Bayliss and Marshall (2022). Where possible, bone samples were selected from articulated remains to minimise the possibility of dating residual elements.

9.2.2 The samples were submitted to the Scottish Universities Environmental Research Centre (SUERC), University of Glasgow. Detailed descriptions of the methods employed by the

SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016). Stable carbon ($\delta^{13}C$ ‰), nitrogen ($\delta^{15}N$ ‰), and sulphur ($\delta^{34}S$ ‰) isotope ratios were measured by Isotope Ratio Mass Spectrometry (IRMS) and are given as $\delta^{13}C$‰, $\delta^{15}N$‰ and $\delta^{34}S$ ‰ values. The measurements were obtained on bulk collagen extracted as part of the radiocarbon dating process, in order to be able to infer any potential dietary/reservoir effects affecting the dates (e.g., Cook et al. 2015), and to obtain additional information on population mobility.

9.2.3 The calibrated age ranges were calculated using the probability method with OxCal 4.4 (Bronk-Ramsey 2009) using the IntCal20 curve (Reimer et al. 2020). All radiocarbon measurements are quoted as radiocarbon ages: uncalibrated years before present (BP), followed by the laboratory code and the calibrated date-range (cal. BC) at the 95.4% confidence level, with the end points rounded out to the nearest 10 years.

9.3 Results

9.3.1 Two of the samples were successfully measured, providing results in the Late Iron Age/Early Romano-British and the late Romano-British periods respectively (Table 43). The results are imprecise due to the nature of the calibration curve for these periods but confirm the phasing of the features and, potentially, other associated features within the respective areas.

Table 43 Radiocarbon dating results.

Lab. ref	Feature	Sample ref	Material	Radiocarbon Age (BP)	$\delta^{34}S$‰	$\delta^{13}C$‰	$\delta^{15}N$‰	calibration (95% probability)
SUERC-108719 (GU63251)	170152	Zone 2_170073_170074	Bone (animal): dog 2x lumbar vertebra (1.2 g)	1981 ±31	10.9	-22.1	9.9	50 cal. BC–cal. AD 120
GU63252	180069	Zone 2_180066_180068	Bone (animal): cattle tarsal (2.2 g)	Failed				
GU63253	180617	Zone 2_180247_180248	Bone (animal): sheep/goat radius shaft frag (1.1 g)	Failed				
GU63254	400548	Zone 2_400234_400238	Bone (animal): cattle mandible (1.3 g)	Failed				
GU63255	550539	Zone 3_550206_550207	Bone (animal): cattle lumbar vertebra (3 g)	Failed				
SUERC-108720 (GU63256)	560024	Zone 3_560024_560025	Bone (human): left humerus (1.9 g)	1734 ±31	-14.2	-21.3	10.2	cal. AD 250–410

9.3.2 Very few artefacts, including pottery fragments of uncertain date, animal bone and a worked bone comb, were obtained from ditch 170152. The successful measurement on two dog lumbar vertebra from the secondary fill of the ditch (170074, slot 170073) provide a date of between 50 cal. BC and cal. AD 120 (SUERC-108719: 1981±31 BP), before which the ditch must have been dug, although the interval between the ditch's excavation and deposition of the animal remains the other is unknown.

9.3.3 A date of cal. AD 250–410 (SUERC-108720: 1734 ± 31 BP) was obtained on a sample (left humerus) taken from disarticulated human remains found in the secondary fill (560025) of ditch 560024. This disarticulation of the remains suggests the measurement does not necessarily give a reliable date for the construction of the ditch, but does provide a *terminus*

post quem for its backfilling, although the interval between the death of the individual and the deposition of their (his) remains in the ditch (and its backfilling) is unknown.

9.3.4 The stable isotope values ($\delta^{13}C$ ‰ and $\delta^{15}N$ ‰) suggest no significant aquatic food sources were present in the diets of the sampled individuals. However, given the location of the site, caution must be exercised when dating remains from carnivorous/omnivorous individuals who may have consumed marine or freshwater foods. Diets with a substantial aquatic (either freshwater or marine) input (>10%) can affect the radiocarbon ages of the different body parts of the sampled individuals, making them appear older than their real ages (this difference is known as a reservoir offset and can be of decades or centuries depending on the individual case).

9.3.5 Four of the samples failed due to insufficient yield of carbon which can be a result of collagen degradation due to the burial environment (e.g., sites located on acidic substrates, intermittent waterlogged conditions). The frequent mineral-coating in the charred plant remains and wood charcoal (see above) suggests a fluctuating water table is prevalent across many excavation areas and further consideration to this preservation issue should be taken into account when dating unburnt bone. Bones could be pre-screened for protein preservation using %N measurements prior to radiocarbon dating. In the case of cremated bone, the carbon is measured from the inorganic fraction rather than the collagen, and therefore this problem should not be encountered. However, there are other issues associated with dating cremated bone, namely the exchange of carbon between the fuel and the bone during the cremation process, meaning dating pairs of bone and fuel debris (e.g., wood charcoal) is the safest strategy to obtain reliable chronologies.

10 STATEMENT OF POTENTIAL

10.1 General

10.1.1 A statement of potential and updated project design relating to the archive generated by the mitigation and evaluation investigations within Zones 2 and 3 is presented in a separate document that also encompasses the equivalent archive from Zone 1 of the Viking Link cable route (Wessex Archaeology 2023b).

11 STORAGE AND CURATION

11.1 Museum

11.1.1 The archive resulting from the excavation is currently held at the offices of Wessex Archaeology in Sheffield. The Collection has agreed in principle to accept the archive on completion of the project, under the accession code LCNCC:2020.122. Deposition of any finds with the museum will only be carried out with the full written agreement of the landowner to transfer title of all finds to the museum.

11.2 Preparation of the archive

Physical archive

11.2.1 The physical archive, which includes paper records, graphics, artefacts and ecofacts, will be prepared following the standard conditions for the acceptance of excavated archaeological material by The Collection, and in general following nationally recommended guidelines (SMA 1995; CIfA 2014c; Brown 2011).

11.2.2 All archive elements will be marked with the site*/*accession code, and a full index will be prepared. The physical archive currently comprises the following:

- Approximately 80 cardboard boxes or airtight plastic boxes of artefacts and ecofacts, ordered by material type;

- 40 files/document cases of paper records and A3/A4 graphics.

Digital archive

11.2.3 The digital archive generated by the project, which comprises born-digital data (e.g., site records, survey data, databases and spreadsheets, photographs and reports), will be deposited with a Trusted Digital Repository, in this instance the Archaeology Data Service (ADS), to ensure its long-term curation. Digital data will be prepared following ADS guidelines (ADS 2013 and online guidance) and accompanied by metadata.

11.3 Selection strategy

11.3.1 It is widely accepted that not all the records and materials (artefacts and ecofacts) collected or created during the course of an archaeological project require preservation in perpetuity. These records and materials will be subject to selection in order to establish what will be retained for long-term curation, with the aim of ensuring that all elements selected to be retained are appropriate to establish the significance of the project and support future research, outreach, engagement, display and learning activities, ie the retained archive should fulfil the requirements of both future researchers and the receiving Museum.

11.3.2 The selection strategy, which details the project-specific selection process, is underpinned by national guidelines on selection and retention (Brown 2011, section 4) and generic selection policies (SMA 1993; Wessex Archaeology's internal selection policy: available on request) and follows CIfA's *Toolkit for Selecting Archaeological Archives*. It should be agreed by all stakeholders (Wessex Archaeology's internal specialists, external specialists, local authority, museum) and fully documented in the project archive.

11.3.3 Detailed selection proposals for the complete project archive (combining evaluation and excavation), comprising finds, environmental material and site records (analogue and digital), are made in the site-specific Selection Strategy and Digital Management Plan, which are presented in the Updated Project Design (Wessex Archaeology 2023b).

11.4 Security copy

11.4.1 In line with current best practice (e.g., Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

11.5 OASIS

11.5.1 An OASIS (online access to the index of archaeological investigations) record (http://oasis.ac.uk) has been initiated, with key fields completed (Appendix 2; wessexar1-412442). A .pdf version of the final report will be submitted following approval by the archaeological advisors to the local planning authorities. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

12 COPYRIGHT

12.1 Archive and report copyright

12.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*.

12.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

12.2 Third party data copyright

12.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (e.g., Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of *the Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of such material

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Appendix 1: Oversize finds tables

Table 44 Worked flint assemblage from Zone 2 evaluation trenches by object type

Trench	Flint object type																				*Total*
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**Q**	**R**	**S**	**T**	**U**	
15							1															*1*
19							1															*1*
38											1											*1*
41									1												2	*3*
46													1									*1*
48											1											*1*
83											1	1										*2*
84									2			1										*3*
85											1											*1*
91		1										3	1									*5*
94																				1		*1*
95													1			1						*2*
97																			1			*1*
118									1		3	1										*5*
120			1				1		1							1			1			*5*
122		2	1				2		4	2	2	3	4					1	1			*22*
124			2		5		10		10	2	5	6	3	1		1			1			*46*
125		1																				*1*
132																					1	*1*
135														1								*1*
140									1													*1*
149	2	1	3	1	1		2		3	1	9	5	2	1	1	6	1	2	1			*42*
151									1		1											*2*

Trench	Flint object type																				Total
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	
154											1											*1*
232		1																				*1*
237		1									1	1						1				*4*
240																1						*1*
257											1											*1*
259			1		1	1						1										*4*
271																			1			*1*
280				1			2	1	4		3	3	1			1		1				*17*
286							1															*1*
320	4																					*4*
322								2														*2*
327																		1				*1*
328		1																				*1*
329												1										*1*
Total	*6*	*8*	*8*	*2*	*7*	*1*	*20*	*3*	*28*	*5*	*30*	*26*	*13*	*3*	*1*	*11*	*1*	*6*	*6*	*1*	*3*	*189*

Key: A = core fragment; B = flake core; C = blade core; D = bladelet core; E = blade; F = bladelet; G = broken blade; H = broken bladelet; I = broken flake; J = primary flake; K = secondary flake; L = tertiary flake; M = shatter; N= rejuvenation tablet; O = microdenticulate; P = misc. retouch; Q = notch; R = piercer; S = scraper; T = axe; U =microdebitage

Table 45 Summary of results from scan of human bone from Area 9 Anglo-Saxon cemetery

Context	Cut	Deposit type	Quantification	Age/sex	Pathology	Comment
900001	layer	R	<1%	adult 20–26 yr	-	4-5, chemically eroded; comprising one MtC shaft and one third molar
900021	900019	inh. burial *flexed left*	60% s.u.l.	subadult 15–17 yr ??female	calculus; MV – multiple large Wormian bones, ? acetabula abnormally shallow	4-5, poor cortical preservation (chemical leaching), trab bone destroyed; very brittle bone; fragmented; no craniometrics, limited long bone metrics, no stature
900047		inh. burial *flexed left*	30% s.u.l.	infant 3–5 yr	MV – multiple large Wormian bones	4-5, poor cortical preservation (chemical leaching), poor trab bone preservation; very brittle bone; fragmented; no craniometrics, limited long bone metrics, no stature
900062	900060	inh. burial *flexed left*	20% a.u.l.	adult >18 yr	-	5, very poor cortical preservation (chemical leaching), trab bone destroyed; very brittle bone; very fragmented; no cranium or teeth; no metrics gracile (??? female)
900064	900063	inh. burial *flexed right*	80%	adult >20 yr ??female	calculus (left> right); periapical abscess; DEH; chipped incisors & right lower second molar; MV – palatal torus	5, very poor surface cortical preservation (chemical leaching); trab bone preservation poor; very brittle & fragmented; cranium near complete but very fragmented, metrics limited, no stature; mixed sex traits, robust
900068	900067	inh. burial *supine, extended*	60% a.u.l.	adult 18– 22 yr ?? male	calculus; spondylolysis, ?spondylolisthesis – L4 & L5; op – S1 body; ? fracture – right radial head, left patella; enth – deltoid tuberosity, left radial tuberosity, hand phalanges, *linea asperas*; op and po – S1, ribs; MV – left & right humeral supracondylar ridge	3-4, fair-poor surface preservation (chemical leaching), trab bone preservation fair but bone very brittle; moderate fragmented; no cranium, 4 loose teeth nr pelvis; robust build with marked upper limb M insertions; Fe staining left ribs
900071	900070	inh. burial *flexed left*	60%	adult 35–45 yr ? male	dental caries; calculus; endocranial nbd; op, po and subchondral cysts – acetabula	3-5, fair-poor surface preservation (chemical leaching), trab bone poor; bone very brittle;

Context	Cut	Deposit type	Quantification	Age/sex	Pathology	Comment
					& femoral head; MV – Wormian bones; femora very platymeric	moderate-high fragmentation; left upper limb missing
900080	900079	inh. burial *crouched right*	80%	adult 20–30 yr female	DEH; calculus; chronic maxillary sinusitis; *cribra orbitalia*; Sch – 5T, 1L; ? tuberculosis/ brucellosis – T & L	3-5, fair–poor surface cortical preservation (chemical leaching), trab bone preservation poor; very brittle; slightly fragmented; cranium near complete but fragmented – partly reconstructable, metrics limited; some long bone metrics no stature not; ear bones present; fairly robust build
900100	900098	inh. burial flexed, right	80%	subadult 15–17 yr ?female	dental calculus; ectocranial nbd – temporal bones; ? slight avulsion – fusing left glenoid cavity; MV – Wormian bones	3-5, mixed cortical preservation, (chemical leaching), trab bone poor, very brittle; moderately fragmented; cranium near complete partly reconstructable, metrics very limited
900105	900104	inh. burial *supine, extended*	20% a.u.	adult >18 yr	-	5, very poor cortical preservation (chemical leaching), trab bone destroyed, very brittle, very fragmented; truncated by graves 900067 & 900114); no metrics; gracile (??? female)
900115	900114	inh. burial *flexed right*	97%	adult 40–55 yr male	dental calculus; DEH; fractures – ?well healed depressed fracture – left parietal, left auricular surface (pelvis); ?infection – 2L; oa – left c-v joint; Sch – 2T; op – distal femora/knees, left glenoid, proximal ulnae, acetabula, 1st MtC head, anterior facet atlas, C/T/L/1stS bsm; ossified cartilage – ?thyroid; ossified ligament – L; enth – dorsal femora, minimum 4 rib tubercles; MV – Wormian bones	2–3, parts skull 3–4, right upper limb 5–5+, trab. poor; some reconstruction required, skull very fragmented (common recent breaks), most indices recoverable; very large, robust individual
900122	900085	inh burial *flexed left*	60%	adult 28–34 yr ??female	calculus	4–5, poor cortical preservation (chemical leaching), trab largely destroyed; moderate fragmented; no metrics; gracile build
900133	900131	inh. burial *flexed right*	88%	adult 28–33 yr male	dental calculus; caries – maxillary; periapical abscess – maxilla; nbd (healed) – left tibia (medial shaft); oa – c-v (min. 2 left and 2 right); Sch – 2T; *osteochondritis dissecans* – right distal humerus; op – right femur head, 1L, left c-v; enth – slight Soleal lines	3–5+ (eroded, degraded) left humerus & all right upper limb very degraded; fragmented (much fresh); some reconstruction long bones, skull not worth reconstruction; robust attachments (especially proximal femur); dark staining – mandible inferior margins body
900139	900137	inh. burial *flexed right*	80%	adult 20–30 yr female	dental calculus; *cribra orbitalia*; spondylolysis – L5; MV – double zygomatic foramen, shovelled incisors, palatal torus, humerus supracondylar	3–5, cortical preservation varied, trabecular bone

Context	Cut	Deposit type	Quantification	Age/sex	Pathology	Comment
		R a and b		a) juvenile 6–12 yr b) adult >45 yr	ridge, ?lumbarisation/ additional 6th L; calcaneus double facet b) ossified thyroid cartilage	fair-good; no craniometrics, some long bone metrics, but not stature; discrepancies with ageing methods; fairly robust; animal bone with pelvis & vertebrae a) 3-4; darker than 900137 b) 3-4: darker than 900137
900142	900140	inh. burial *crouched right*	40%	adult >50 yr female	Pd; calculus; hypercementosis left side- ? facial palsy/ dental disease; extramasticatory wear; ? *cribra orbitalia*; SDJD/ oa – 2L; op – right acetabulum	5, poor cortical & trab. bone preservation (chemical leaching), highly fragmented; no craniometrics, limited long bone metrics, no stature
900163	900161	inh. burial *flexed right*	80%	subadult 15–17 yr female	dental calculus; DEH; cribra orbitalia; right mastoid process anomalous shape – ? developmental/ ?mastoiditis; spondylolysis – L5; MV – second incisor shovelling, acetabular crease	2-5, variable cortical preservation, trab preservation fair, fairly brittle; some cranial reconstruction and metrics, some postcranial metrics; animal incisor (cow/horse) with skull
900174	900172	inh. burial *flexed right*	80%	adult 18–22 yr male	chronic maxillary sinusitis; Sch – 2T; MV – third molar non-eruption/ agenesis	3–5+ (chemically leached), very brittle; trabecular bone fair to poor preservation; limited reconstruction cranium & long bones, no stature; robust build
900177	900175	inh. burial *flexed right*	80%	adult 35–50 yr female	amtl; dental caries; calculus; periapical abscess; DEH; cribra orbitalia – left orbit; op – right hand IP; enth – left radial tuberosity; *linea asperas*; parturition scar – left pubis; SDJD and oa– lower T and L; op – right acetabulum; MV – Wormian bone, acetabular crease	2-5, ectocranial surface very eroded, endocranium fair to good, upper half of post-cranial skeleton better preserved than lower; some metrics, no stature; fairly robust build
900186/ 900199	900184	inh. burial crouched/ *flexed right*	30% a.u.l.	subadult 12–15 yr	-	5, cortical surfaces very poor (chemically leached), trabecular bone destroyed; no metrics; gracile build
900189	900187	? inh. burial *body position unknown*	2% s.l.	infant 1.5–2.5 yr	-	5, three scraps very degraded long bone (??femur); petrous x 2, 1 x deciduous molar & 3 x 1st molar crowns only; recovered in soils samples with amber bead
900191	900190	inh. burial *flexed right*	75%	adult >60 yr male	amtl; calculus; caries; pd; periapical void; healed endocranial nbd – occipital bone; left mandible –? avulsion fracture, ?? midline fracture; SDJD – C–L; oa – C–L; ddd – C–L; op	4-5+ (chemically leached); poor trabecular preservation; fragmented, some reconstruction for limited metrics, no stature; robust build; right humerus and femur truncated

Context	Cut	Deposit type	Quantification	Age/sex	Pathology	Comment
					– ribs, acetabula, femoral condyle; bone-former – ossification of *Liamentum. flavia; enth – linea aspera, Gluteus minimus*, left Achilles' tendon; MV – acetabular crease	
900194	900193	inh. burial *flexed left*	70%	adult 28–32 yr ? female	MV – second incisor and canine shovelled	4-5+: chemically leached; very fragmented; limited metrics, left upper limb and feet missing
900197	900196	inh. burial *crouched left*	78%	adult 35–45 yr male	amtl; dental calculus; nbd – talus (calcaneal surface); op – odontoid process; bsm – T; MV – metopic suture	4–5+ (eroded, degraded), limited trab bone survival; limited reconstruction (not skull), some metrics; large, robust individual, massive mental spines; green stain right proximal tibia
900206	900205	inh. burial *flexed left*	80%	adult 20–25 yr ?? male	Sch – lower 2T/ L; enth – Soleal line: MV: second incisor shovelling, palatal torus, acetabular crease, double calcaneal facet	4-5, poor cortical bone preservation (chemically leached), limited trabecular preservation; limited metrics, no stature; dental attrition less than expected for age

KEY: R – redeposited; inh. – inhumation; s.a.u.l. – skull/axial skeleton/upper limb/lower limb (where all four areas of skeleton not represented); C/T/L/S – cervical/thoracic/lumbar/ sacral vertebrae; MtT/P – metatarsal/phalangeal; amtl – ante mortem tooth loss; bsm – body surface margins; c-v ¬ costo-vertebral; ddd – degenerative disc disease; DEH – dental enamel hypoplasia; enth – entheseal changes; exo – exostoses; IP – intermediate phalange; nbd – new bone deposition; op – osteophytes; oa – osteoarthritis; pd – periodontal disease; po – porosity; Sch – Schmorl's nodes; SDJD – spinal degenerative joint disease; trab – trabecular; MV – morphological variation

Appendix 2: OASIS summary

OASIS ID (UID): wessexar1-412442

Project Name: Viking Link, UK Onshore Scheme from Boy Grift Bridge to Bicker Fen (Zones 1-3)

Activity type: TRIAL TRENCH, Excavation

Project Identifier(s): 218710, 218712, 218713, 218715, 218716

Planning Id: 17/1200/FUL, N/110/01549/17, H04-0823-17, B/17/0340

Reason for Investigation: Planning: Post determination

Organisation Responsible for work: Wessex Archaeology

Project Dates: 04-May-2020 - 12-Nov-2021

HER: Lincolnshire HER 30 Sep 2023

HER Identifiers: [no data]

Project Methodology: Trench evaluation (no. = 531) leading to c. 50 Set Piece Excavations along the 67 km-route of the onshore part of the Viking Link High Voltage Direct Current Interconnector cable. Intrusive fieldwork undertaken by Network Archaeology Ltd in Zones 1 and 2, and Wessex Archaeology in Zones 2 and 3. Zone 1 crossed the Lincolnshire Marsh from Boy Grift Bridge to Haugh. Zone 2 crossed the Lincolnshire Wolds between Haugh and Hagnaby Lock. Zone 3 was the fenland section, between Hagnaby Lock and Bicker Fen.

Project Results: Other than remnants of medieval to modern cultivation (comprising remnants of ridge and furrow cultivation, field boundaries grubbed out relatively recently and drainage schemes) the majority of the remains were of Romano-British date. They too were chiefly rural and agricultural, largely comprising ditches dug to drain and divide the land. Some concentrations of such remains and other discrete features are thought to relate to farmsteads. A Roman inhumation cemetery was found near Asserby and an Anglo-Saxon (late 6th to at least the late 7th, possibly early 8th, century) inhumation cemetery reused the site of a Bronze Age barrow to the north of Spilsby. There were occasional finds of cremated and disarticulated unburnt human bone from various locations along the scheme. These are currently mostly undated, although a humerus with signs of defleshing has been radiocarbon dated to the Romano-British period (cal. AD 250–410; 1734±31; SUERC-108720). Briquetage was retrieved from Romano-British features near Swineshead Bridge, presumably relating to saltmaking in the fenland during that period.

Keywords:

Subject/Period: Inhumation Cemetery: EARLY MEDIEVAL

FISH Thesaurus of Monument Types

Subject/Period: Barrow: BRONZE AGE

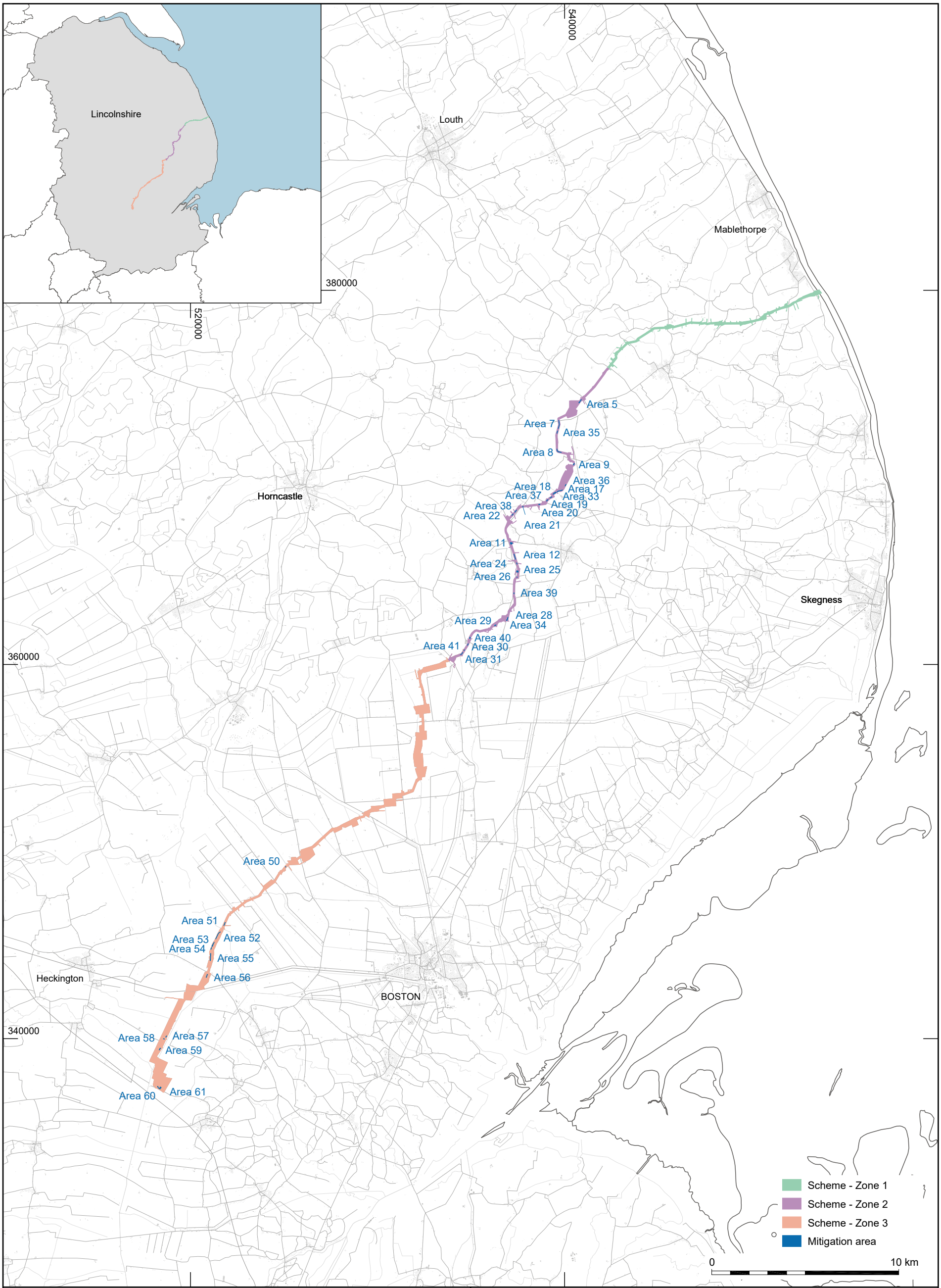
FISH Thesaurus of Monument Types

Subject/Period: Aggregate Field System: ROMAN

FISH Thesaurus of Monument Types
Subject/Period: Pot: BRONZE AGE
FISH Archaeological Objects Thesaurus
Subject/Period: Pot: IRON AGE
FISH Archaeological Objects Thesaurus
Subject/Period: Pot: ROMAN
FISH Archaeological Objects Thesaurus
Subject/Period: Pot: EARLY MEDIEVAL
FISH Archaeological Objects Thesaurus
Subject/Period: Pot: MEDIEVAL
FISH Archaeological Objects Thesaurus
Subject/Period: Pot: POST MEDIEVAL
FISH Archaeological Objects Thesaurus
Subject/Period: Scraper (Tool): EARLY PREHISTORIC
FISH Archaeological Objects Thesaurus
Subject/Period: Knife: EARLY MEDIEVAL
FISH Archaeological Objects Thesaurus
Subject/Period: Debitage: EARLY PREHISTORIC
FISH Archaeological Objects Thesaurus
Subject/Period: Briquetage: ROMAN
FISH Archaeological Objects Thesaurus
Subject/Period: Comb: EARLY MEDIEVAL
FISH Archaeological Objects Thesaurus
Subject/Period: Spindle Whorl: EARLY MEDIEVAL
FISH Archaeological Objects Thesaurus
Subject/Period: Animal Remains: ROMAN
FISH Archaeological Objects Thesaurus
Archive:
Physical Archive, Documentary Archive, Digital Archive - to be deposited with The Collection: Art and Archaeology in Lincolnshire; Accession Id(s): LCNCC:2020.122, LCNCC:2019.168 SITE CODE: VIK19
Reports in OASIS:
Tuck, A.., (2021). Viking Link, UK Onshore Scheme from Hagnaby Lock to Donington Zone 3: Archaeological Evaluation Report. Sheffield: Wessex Archaeology. 218710.03.

Daniel, P. and Halldorsdottir, V., (2023). Viking Link, Lincolnshire, Zone 2 and 3: Post-excavation Assessment Volume 1: Main Text and Figures. Sheffield: Wessex Archaeology. 218714.01. Embargo ends: 31/03/2024

Fitzpatrick, K., (2023). Viking Link, Lincolnshire, Zone 1: Post-excavation Assessment and Updated Project Design. Sheffield: Wessex Archaeology. 218716.01.



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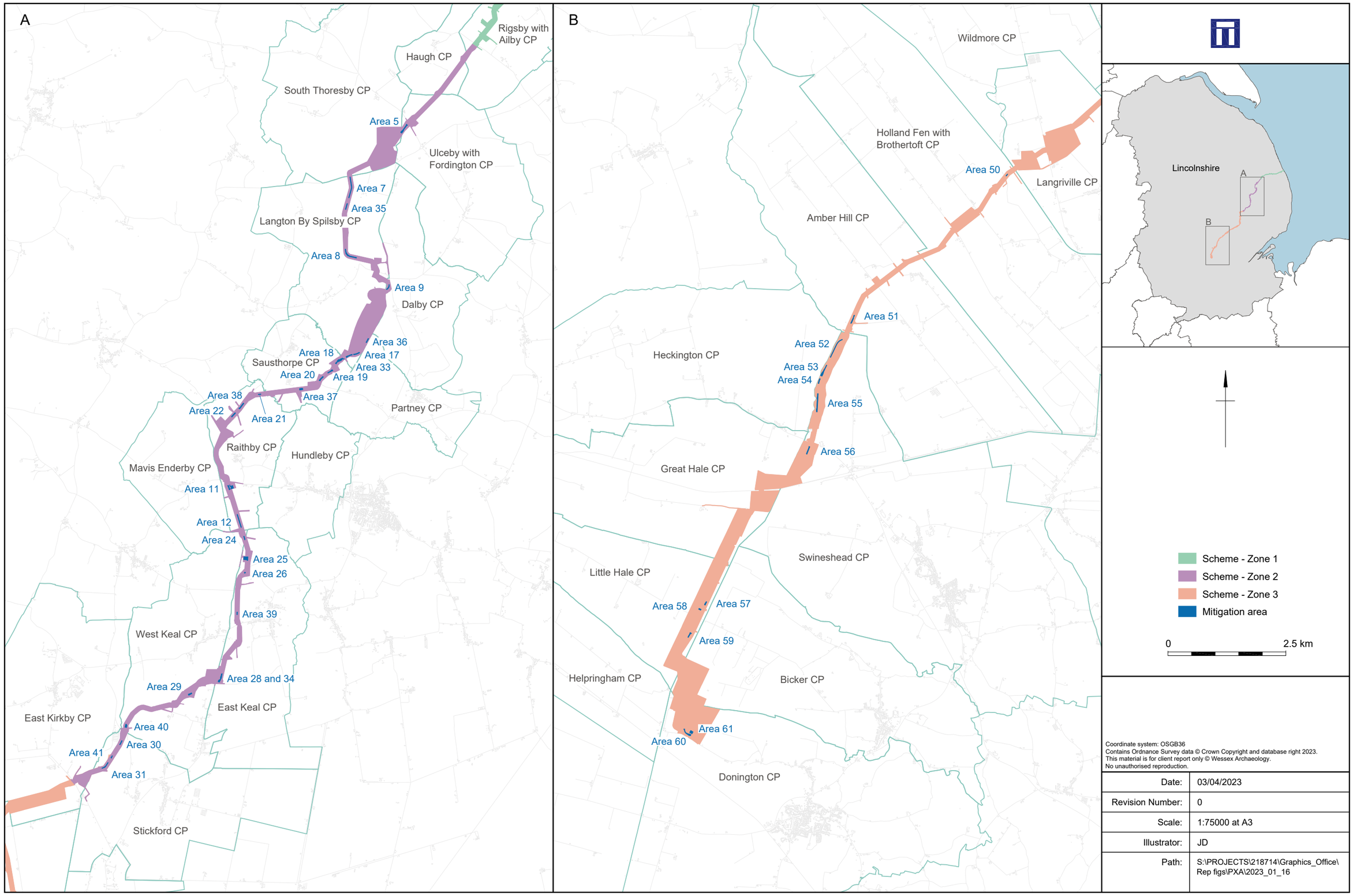
Site location

Figure 1



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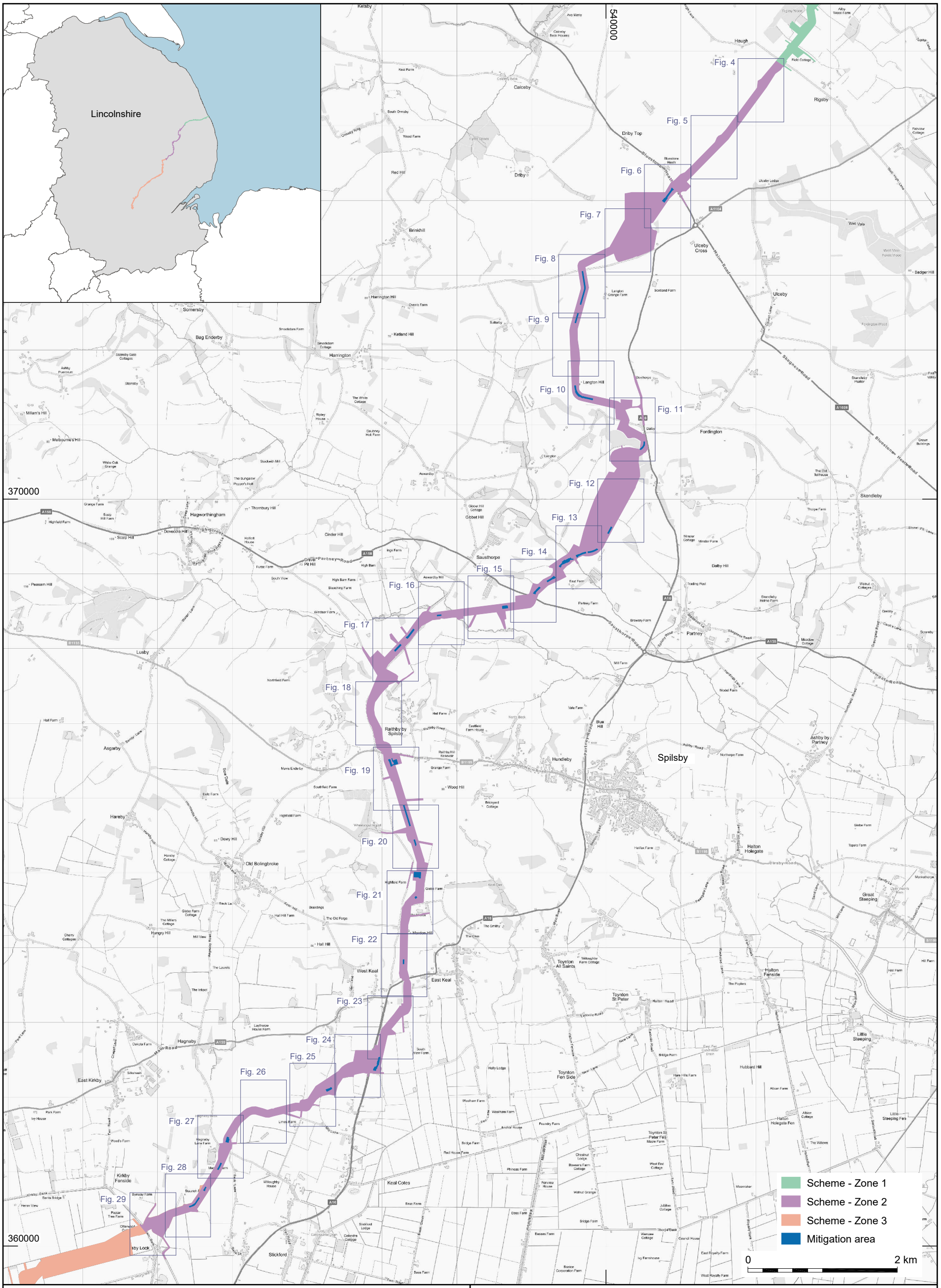
Site location showing civil parishes

Figure 2



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Overview of evaluation sections

Figure 3

542000

375500

T311

T219

T220

T221

T222

T223

Scheme – Zone 2

Evaluation trench (NAL)

Evaluation trench results (NAL)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 219, 220, 221, 222, 223 and 311 (sections 10 and 11)

Figure 4

541500

375000

T76

T55

T312

T54

T74

T75

T224

374500

Scheme – Zone 2

Evaluation trench (NAL)

Evaluation trench results (NAL)

0 100 m

Coordinate system: OSGB36

Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 54, 55, 74, 75, 76, 224 and 312 (section 11)

Figure 5

541000

374000

T225

T2

T226

T5

T264

T265

T313

T3

T1

T77

Area 5

Scheme – Zone 2
Stripped area
Archaeology
Geology
Evaluation trench (NAL)
Evaluation trench results (NAL)

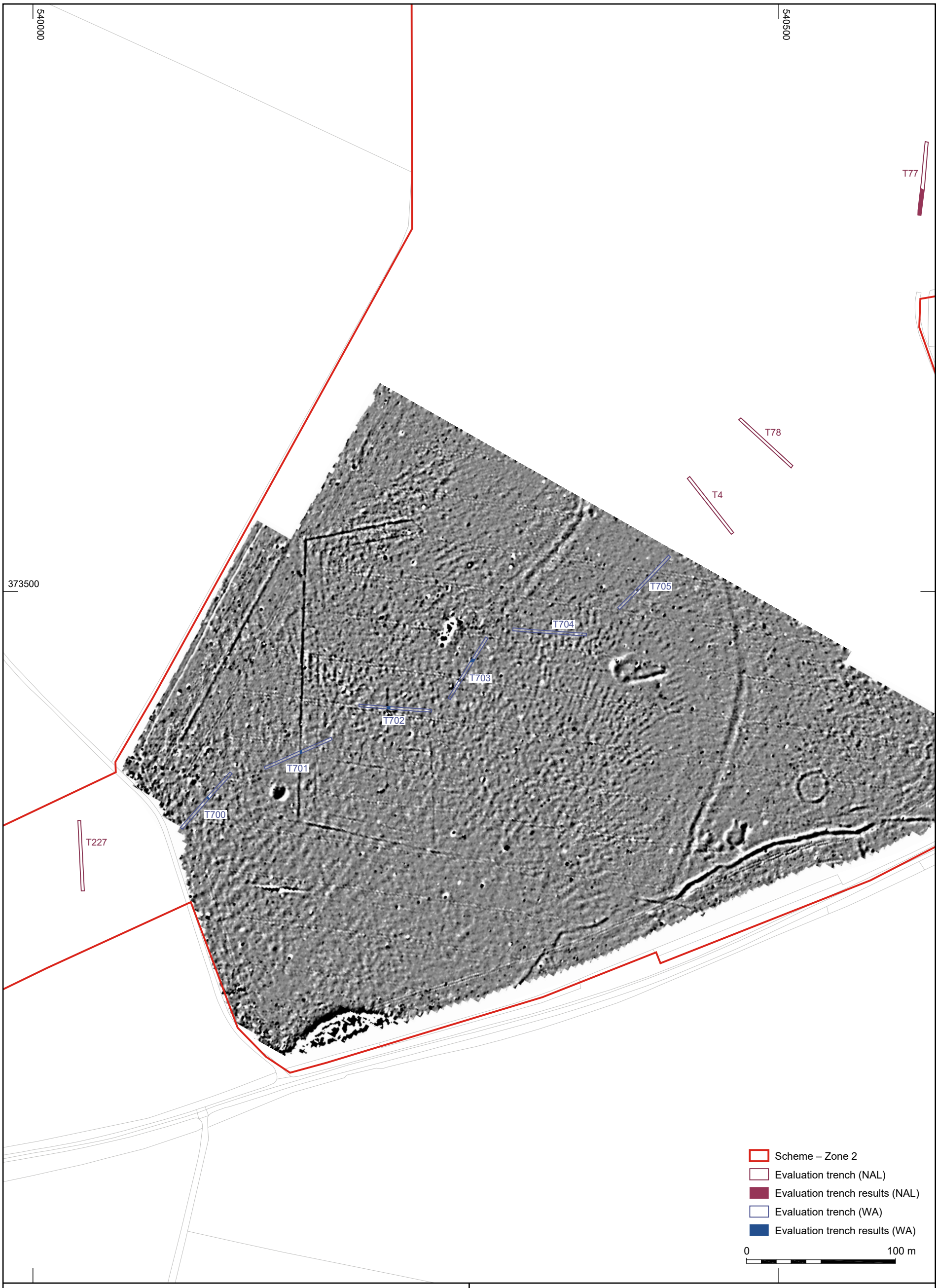
0 100 m

Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 1, 2, 3, 5, 77, 225, 226, 264, 265 and 313 (sections 11 and 12)

Figure 6



Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 4, 77, 78, 227, 700, 701, 702, 703, 704 and 705 (section 12)

Figure 7

539500

373000

T314

T60

T79

Area 7

T80

T61

372500

Scheme – Zone 2
Stripped area
Archaeology
Geology
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 100 m

Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 60, 61, 79, 80 and 314 (sections 12 and 13)

Figure 8

Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

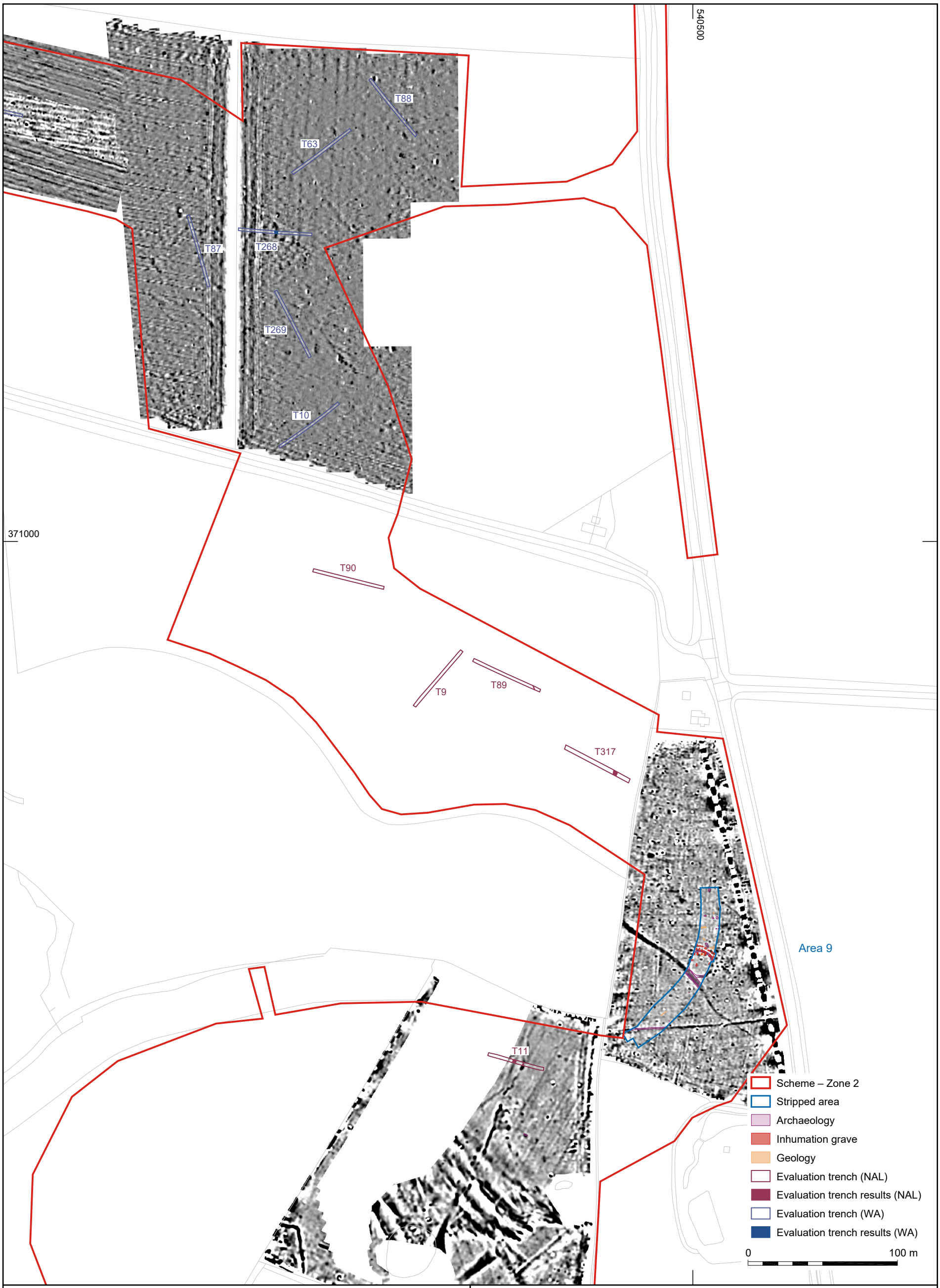
Evaluation results: trenches 6, 7, 8, 61, 62, 81, 82, 83 and 315 (section 13)

Figure 9

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 8, 64, 83, 84, 85, 86 and 316 (sections 13 and 14)

Figure 10



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Geophysical survey provided by Headland Archaeology and Sumo.

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Evaluation results: trenches 9, 10, 11, 63, 87, 88, 89, 90, 268, 269 and 317 (sections 14 and 15)

Figure 11

Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 13, 14, 19, 91, 93, 154, 271, 272 and 318 (section 16)

Figure 12

539500

369500

369000

T65

T94

T143

T18

T16

T15

T17

T319

T96

T97

Area 17

Area 33

Area 18

Scheme – Zone 2

Stripped area

Archaeology

Geology

Evaluation trench (NAL)

Evaluation trench results (NAL)

Evaluation trench (WA)

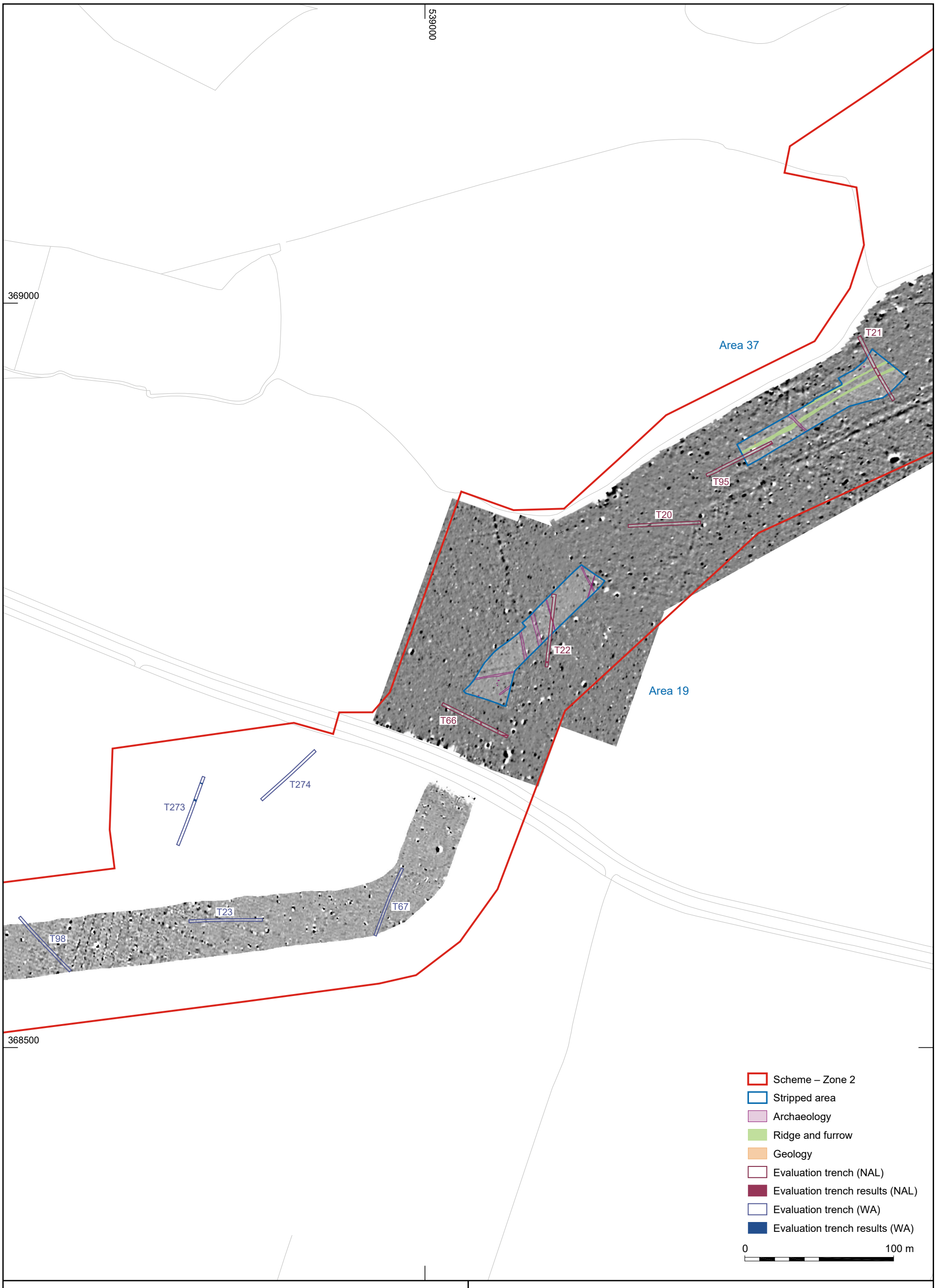
Evaluation trench results (WA)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 15, 16, 17, 18, 65, 94, 96, 97, 143 and 319 (sections 16 and 17)

Figure 13



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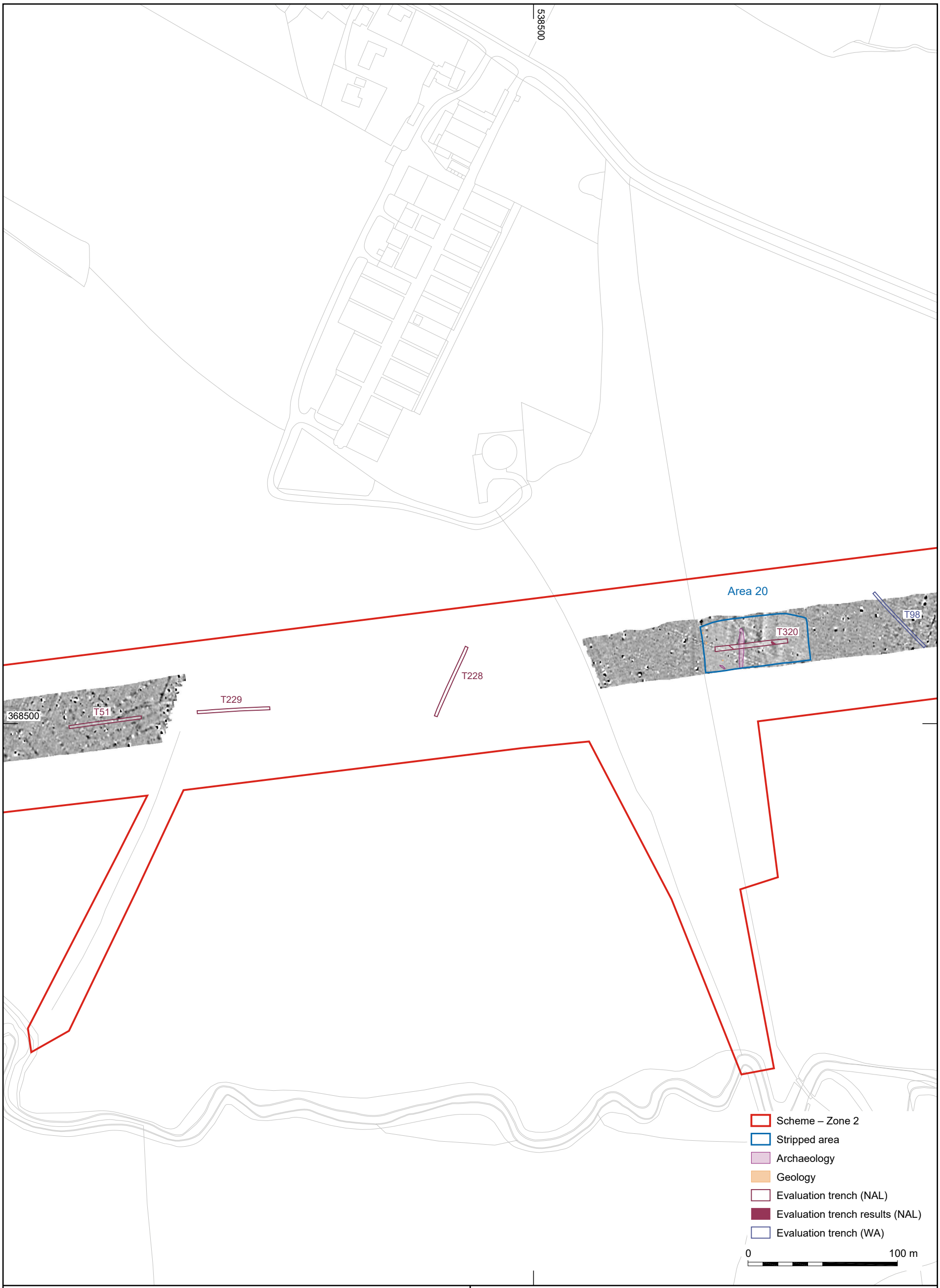
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 20, 21, 22, 23, 66, 67, 95, 98, 273 and 274 (sections 17 and 18)

Figure 14



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Scale:	1:2500 at A3	Illustrator:	JD
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Evaluation results: trenches 51, 98, 228, 229 and 320 (section 18)

Figure 15

537500

538000

368500

Area 21

T231

T100

T321

T258

T230

T25

T26

T99

Scheme – Zone 2

Stripped area

Archaeology

Ridge and furrow

Evaluation trench (NAL)

Evaluation trench results (NAL)

0 100 m

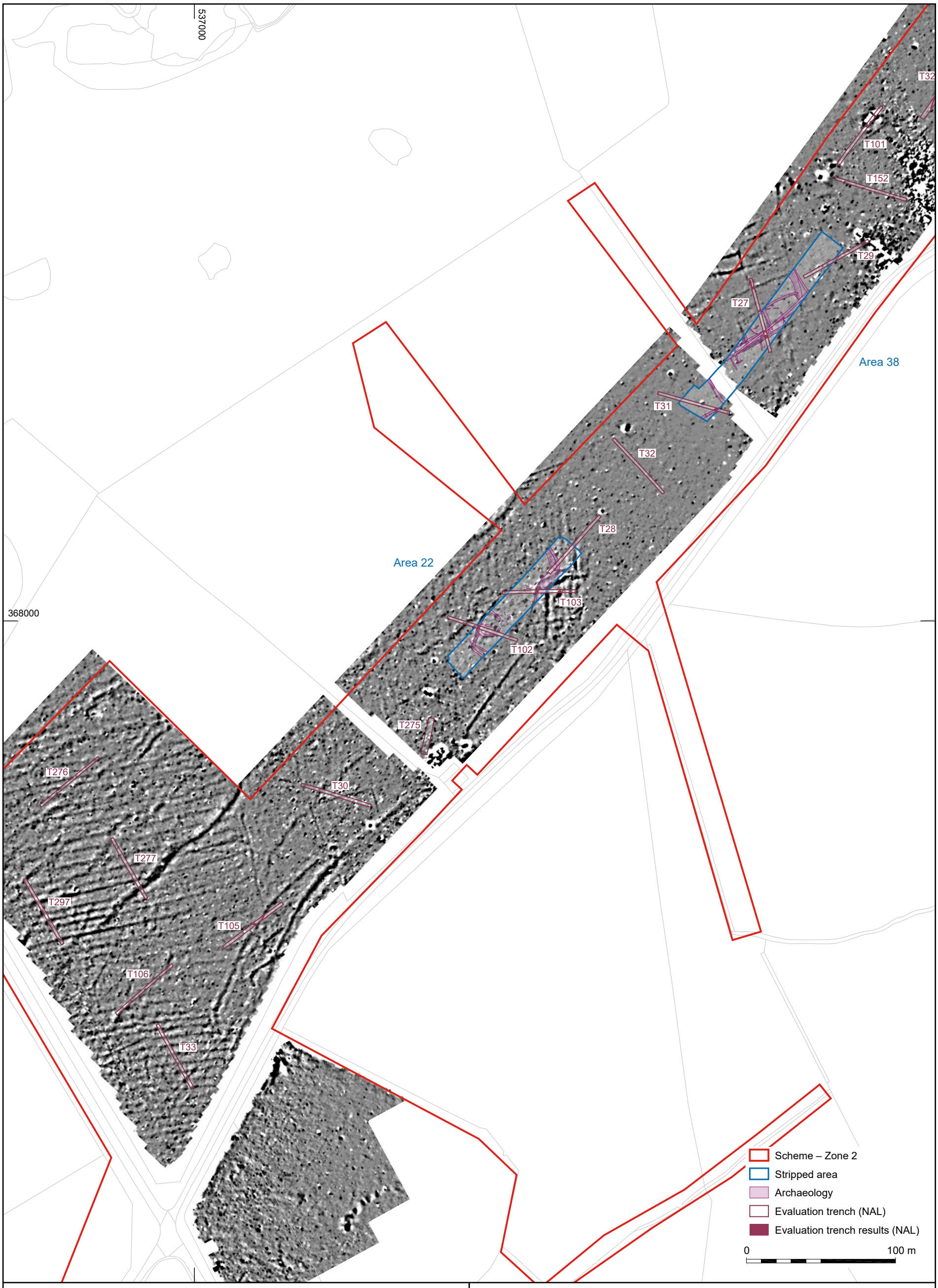
Coordinate system: OSGB36

Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 25, 26, 99, 100, 230, 231, 258 and 321 (sections 18 and 19)

Figure 16



Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 27, 28, 29, 30, 31, 32, 33, 101, 102, 103, 105, 106, 152, 275, 276, 277 and 297 (section 19)

Figure 17

Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 34, 108, 109, 110, 111, 232, 233, 234, 237, 259 and 322 (section 20)

Figure 18

537000

366500

366000

T112

T156

T157

T323

T35

T144

T113

T235

T145

Area 11

Area 12

Scheme – Zone 2
Stripped area
Archaeology
Ridge and furrow
Geology
Evaluation trench (NAL)
Evaluation trench results (NAL)
Evaluation trench (WA)
Evaluation trench results (WA)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 35, 112, 113, 144, 145, 156, 157, 235 and 323 (sections 20 and 21)

Figure 19

537500

365500

Area 12

Area 24

T114

T37

T115

T146

T36

T116

T147

T236

T324

Scheme – Zone 2
Stripped area
Archaeology
Geology
Evaluation trench (NAL)
Evaluation trench results (NAL)
Evaluation trench (WA)
Evaluation trench results (WA)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 36, 37, 114, 115, 116, 146, 147, 236 and 324 (section 22)

Figure 20

Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 38, 39, 40, 68, 70, 118, 119, 120, 121, 148, 238, 239, 240, 298 and 299 (sections 23 and 24)

Figure 21

537000

537500

364000

363500

T279

T241

T278

T69

T325

T125

T122

T280

T124

T149

T242

T243

Area 39

Scheme – Zone 2
Stripped area
Archaeology
Ridge and furrow
Geology
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 69, 122, 124, 125, 149, 241, 242, 243, 278, 279, 280 and 325 (sections 24 and 25)

Figure 22

537000

363000

T244

T245

T246

T326

T247

T248

T249

T123

Area 28

Scheme – Zone 2
Stripped area
Archaeology
Ridge and furrow
Geology
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 244, 245, 246, 326, 247, 248 and 249 (section 25)

Figure 23

536500

362500

362000

T283
T282
T281
T284
T127
T128
T129
T42
T327
T117
T249
T123
Area 28
T41
Area 34
T126

Scheme – Zone 2
Stripped area
Archaeology
Ridge and furrow
Geology
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 41, 42, 117, 123, 126, 127, 128, 129, 281, 282, 283, 284 and 327 (sections 25 and 26)

Figure 24

536000

362000

Area 29

T132

T300

T130

T131

T250

T251

T252

Scheme – Zone 2

Stripped area

Archaeology

Ridge and furrow

Evaluation trench (NAL)

Evaluation trench results (NAL)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 130, 131, 132, 250, 251, 252 and 300 (sections 26 and 27)

Figure 25

535500

362000

T255

T43

T328

T133

T254

T253

361500

Scheme – Zone 2

Evaluation trench (NAL)

Evaluation trench results (NAL)

0 100 m

Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 43, 133, 253, 254, 255 and 328 (section 27)

Figure 26

Coordinate system: OSGB36
Geophysical survey provided by Headland Archaeology and Sumo.

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 44, 45, 46, 47, 134, 136, 137, 148, 256 and 329 (sections 27 and 28)

Figure 27

534500

360500

T138

T135

T150

T140

T139

T257

T141

T49

Area 41

Area 31

Scheme – Zone 2
Stripped area
Archaeology
Geology
Evaluation trench (NAL)
Evaluation trench results (NAL)
Evaluation trench (WA)
Evaluation trench results (WA)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 49, 135, 138, 139, 140, 141, 150 and 257 (sections 28 and 29)

Figure 28

534000

360500

T49

T50

T330

T151

T142

T287

T350

T285

T351

T286

360000

Scheme – Zone 2

Evaluation trench (NAL)

Evaluation trench results (NAL)

Evaluation trench (WA)

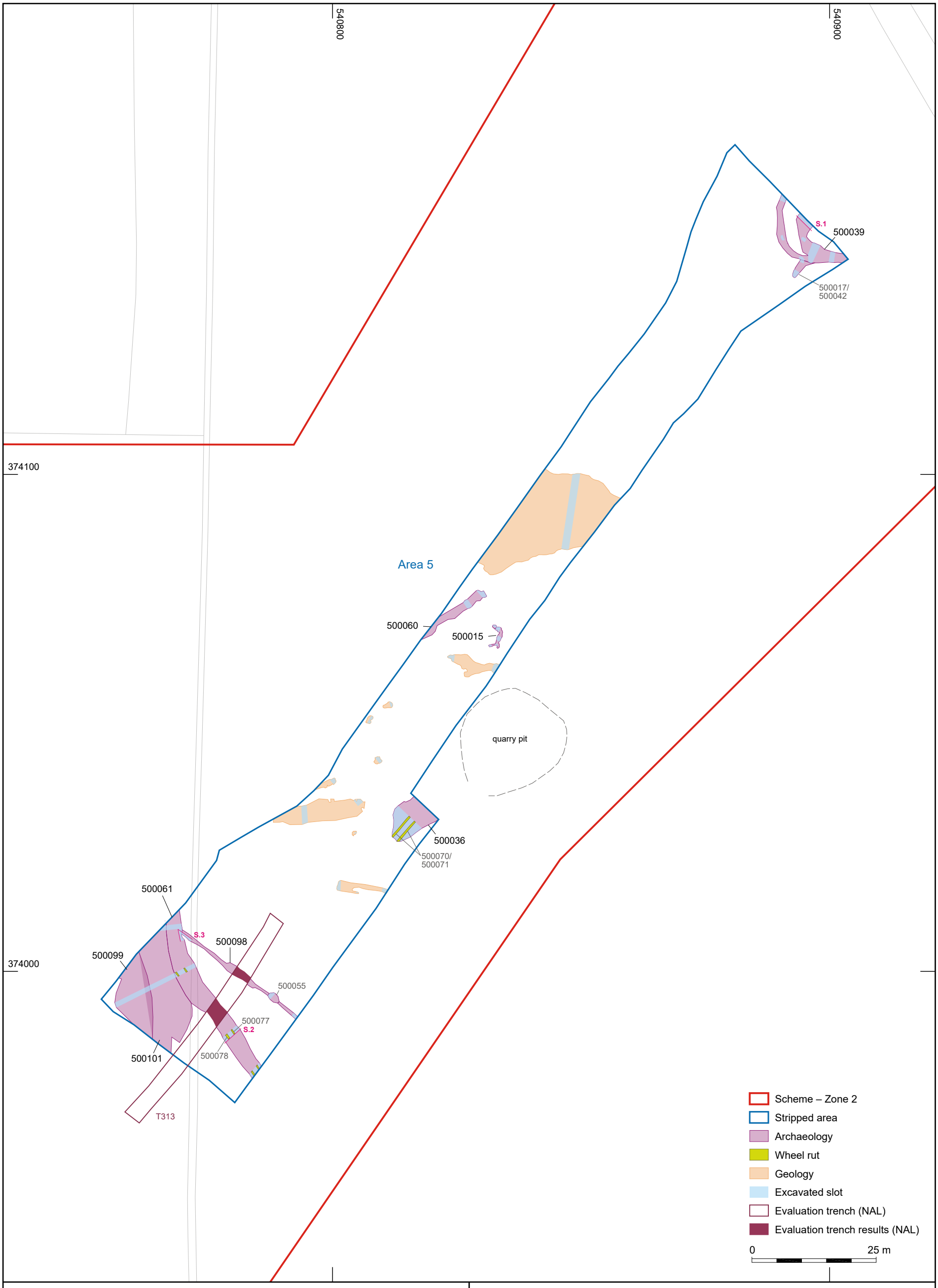
Evaluation trench results (WA)

0 100 m

Date:	06/04/2023	Revision Number:	0
Scale:	1:2500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Evaluation results: trenches 49, 50, 142, 151, 285, 286, 287, 330, 350 and 351 (section 29)

Figure 29

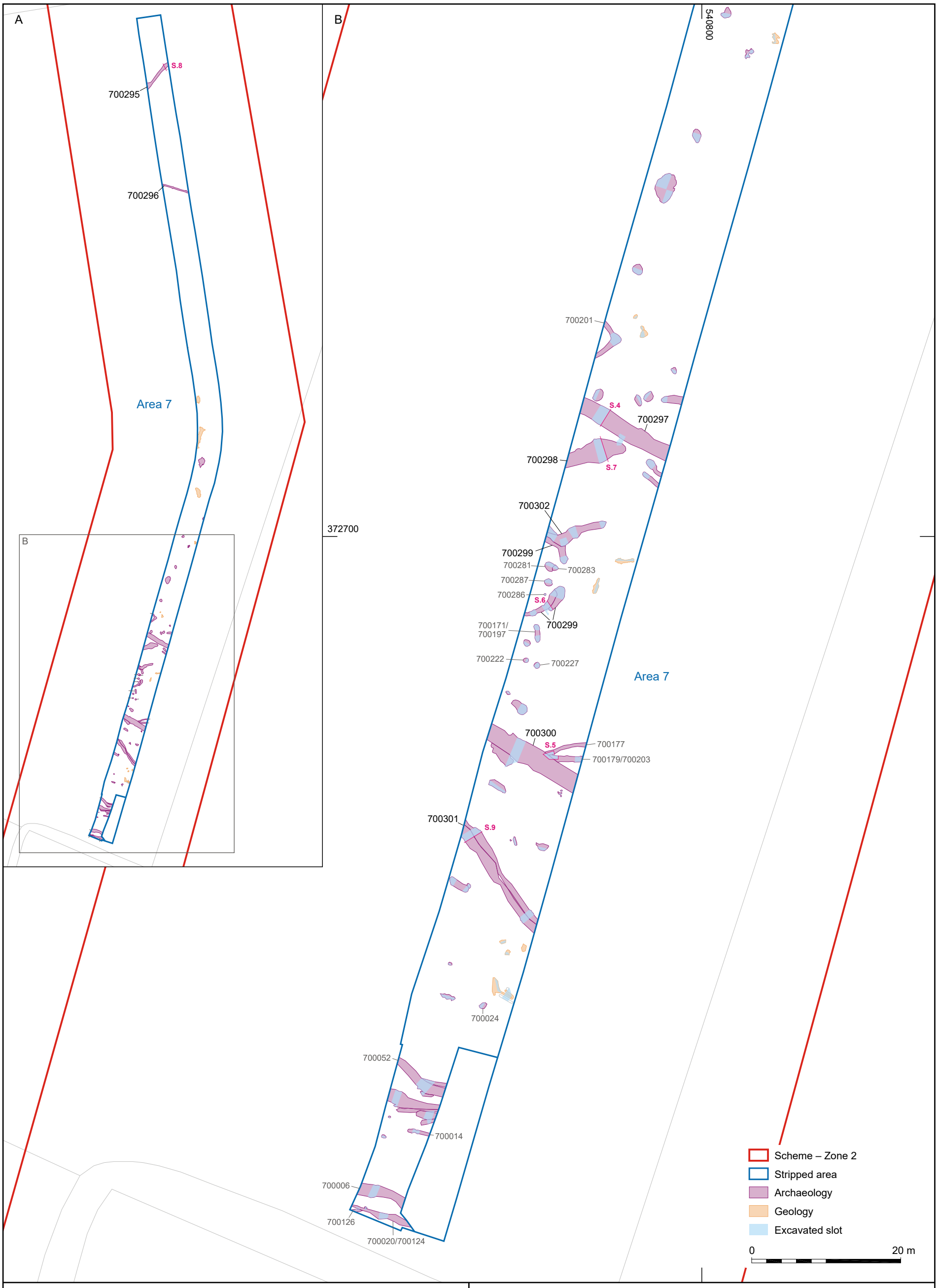


Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:750 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 5

Figure 30



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

372500

539600

350147

350097

350091

350094

T61

350173

6107

350170

350161

350068/350112

350135

350194

S.12

350127

350102

350177

Area 35

350913

S.11

350107/
350143

350047

372400

350119

350033/
350041

350019

S.10

T6

Scheme – Zone 2

Stripped area

Archaeology

Excavated slot

Evaluation trench (NAL)

Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

539600

371500

371400

800240

T85

800112/
800304

800186

800134

800150

800236

800230

800233

800308

800081

S.16

800065

S.17

800098

800050/
800052

800068

800099

800006

Area 8

800487

800089

800498

800488

S.13

800486

800180

S.14

800489

800490

800334

800371

800399/
800415

800385

800492

800380

800407

800029

800491

800258

800437

800369/800423

800038

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Geology
Excavated slot
Evaluation trench (NAL)

0 20 m

Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 8 (west)

Figure 33

539700

539800

371400

371300

800490

800371

800399/
800415

800385

800492

800380

800407

800491

800494

800495

800382

800465

800437

800369/800423

800497

S.15

800038

800493

800496

800032/
800034

800455

800394

Area 8

800480

800476

Scheme – Zone 2

Stripped area

Archaeology

Disturbance

Geology

Excavated slot

Evaluation trench (NAL)

0 20 m

Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 8 (east)

Figure 34

370800

540500

900196 900193 900158 900055 900131 900098 900070 900019 900202 900096 900063 900178 900184 900067 900079 900175 900161 900169 900134 900181 900104 900085 900187 900114 900140 900060 900190 900166 900172 900205 900143 900137 900165 900128 900123/ 900126 900117/ 900120 900107/ 900110 900101 900093 900089

S.19 S.18

0 scale 1:200 10 m

Area 9

900066 900050 900066

Inset

900030/ 900053

370700

900046

S.20

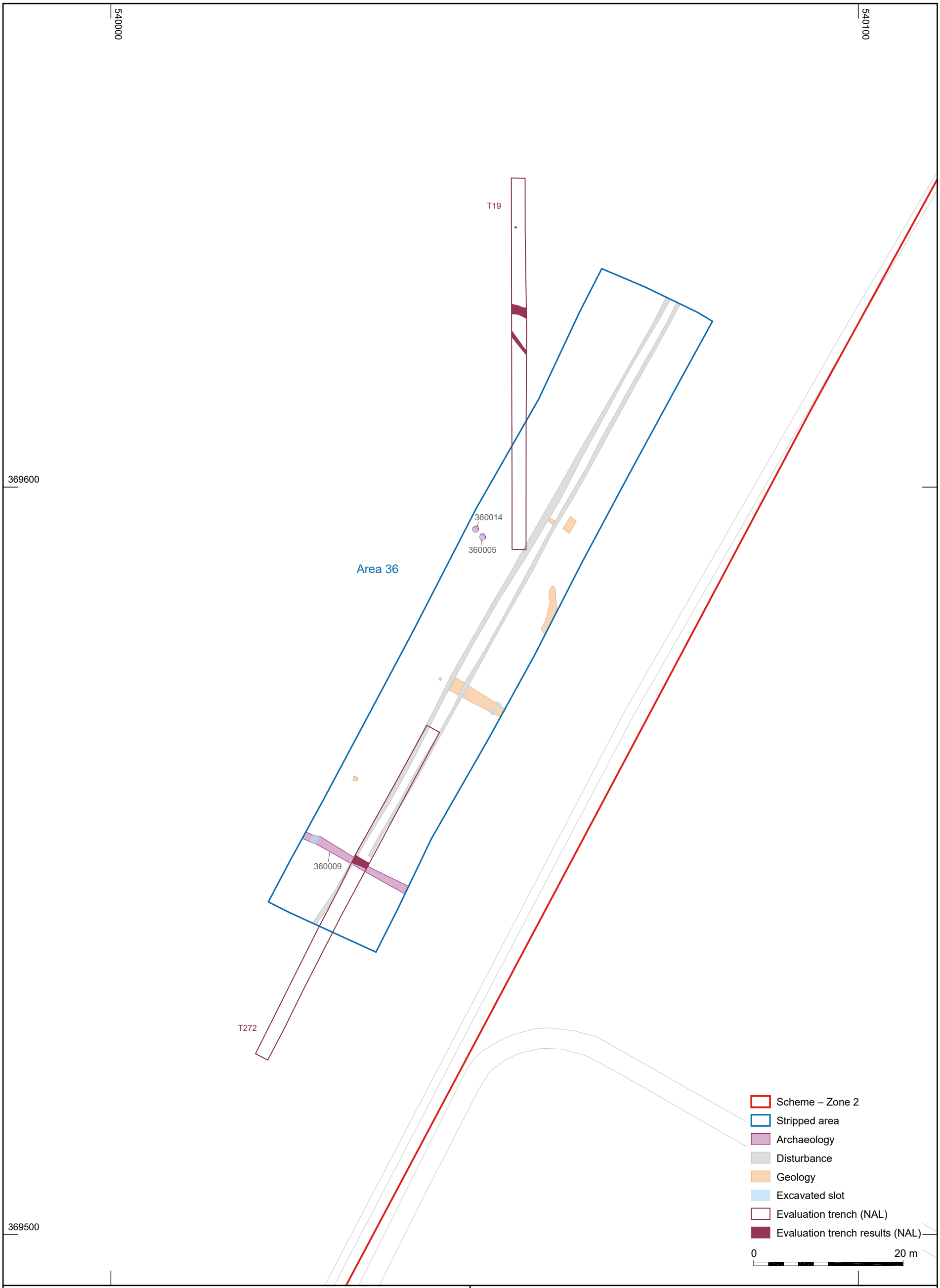
Scheme – Zone 2
Stripped area
Archaeology
Inhumation grave
Disturbance
Geology
Excavated slot

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Area 9

Figure 35



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 36

Figure 36

539800

539900

369300

170160
170161
170158
S.22
170159
S.21
170136
170106
170146
170157
170113
1807
T18
170154
170153
170156
170039
170041
170040
170033
170089
170053
S.24
170025
S.25
S.23
170057
170055
1510
170152
170108
170150
170151
170155
T15
Area 17

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Geology
Excavated slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

539600

539700

369300

T65

T94

14314

T143

330031

330022

330044

330043

330042

S.26

330006

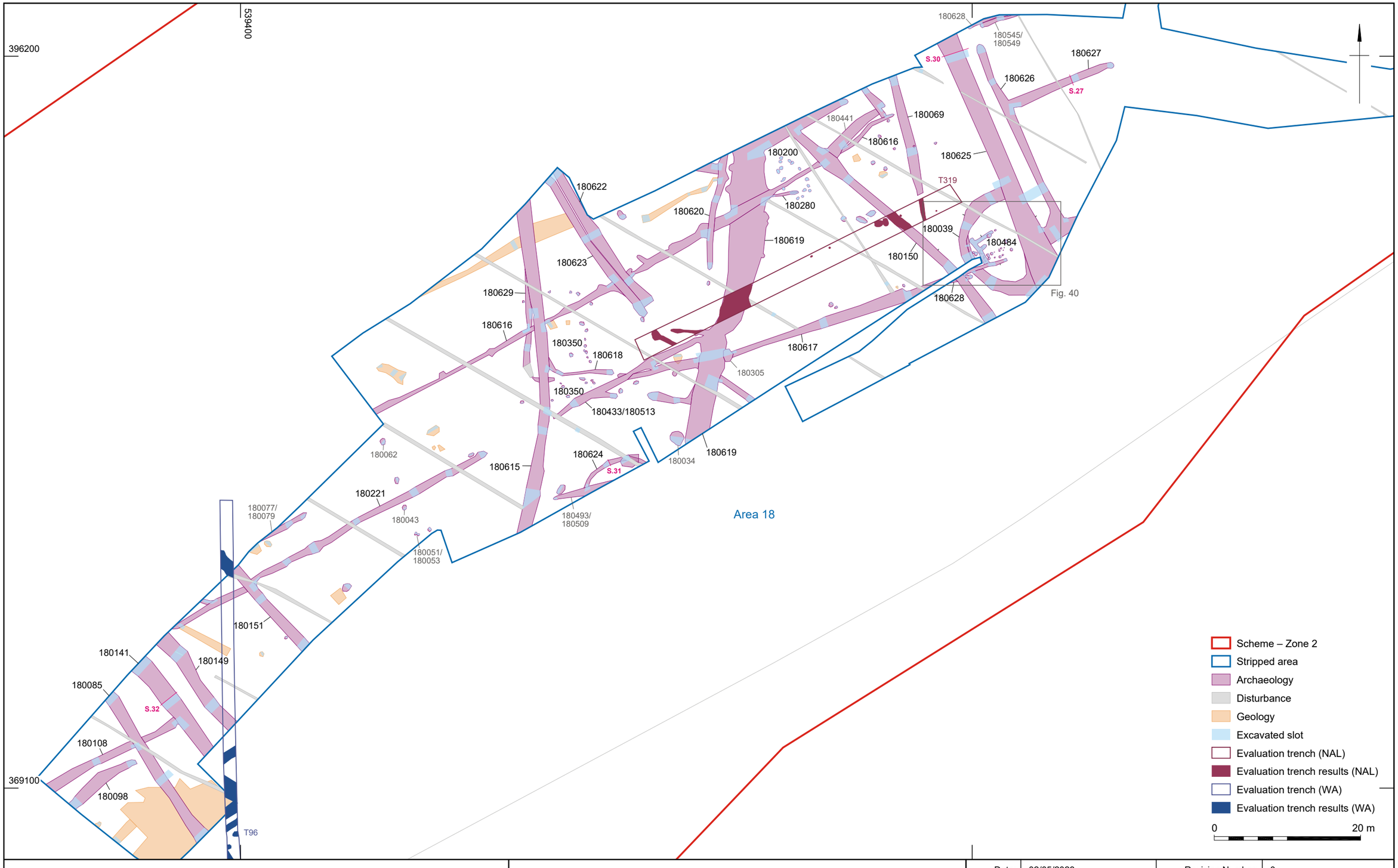
Area 33

T17

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Geology
Excavated slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		



Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 18

Figure 39

396180

539500

539510

180039

180625

180183

180332

180230

180226

180403

180292

180028

180026

180405

180294

180150

180417

180427

180423

180415

180224

180296

180425

180419

180472

180421

180270

180484

180429

180411

180413

180222

180409

180020

180431

180268

180022

180407

180239

180241

180617

180237

180527

180552

S.29

180530

180560

180310

S.28

180554

180155

180556

369170

Scheme – Zone 2

Stripped area

Archaeology

Disturbance

Excavated slot

0 2 m

Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:50 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 18

Figure 40

539200

539300

370010

370029

T21

370021

S.33

370028

Area 37

368900

T95

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Geology
Ridge and furrow
Excavated slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

539000

539100

368800

190007

190011

190064

190075

S.35

Area 19

190028/
190031

T22

190022

S.34

190076

190047

T66

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Bioturbation
Excavated slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

538600

538700

368600

T320

s.36

200033

200034

s.37

Area 20

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Geology
Bioturbation
Excavated slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

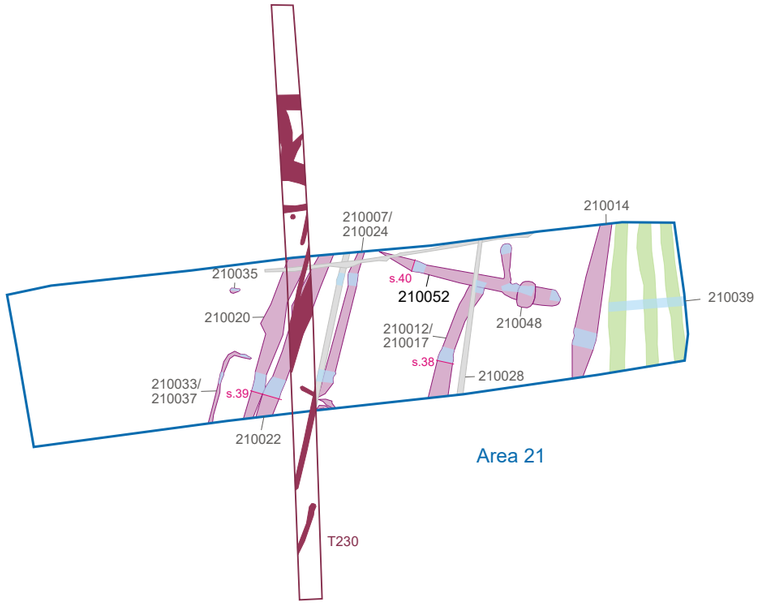
0 20 m

368500

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

537700

537800



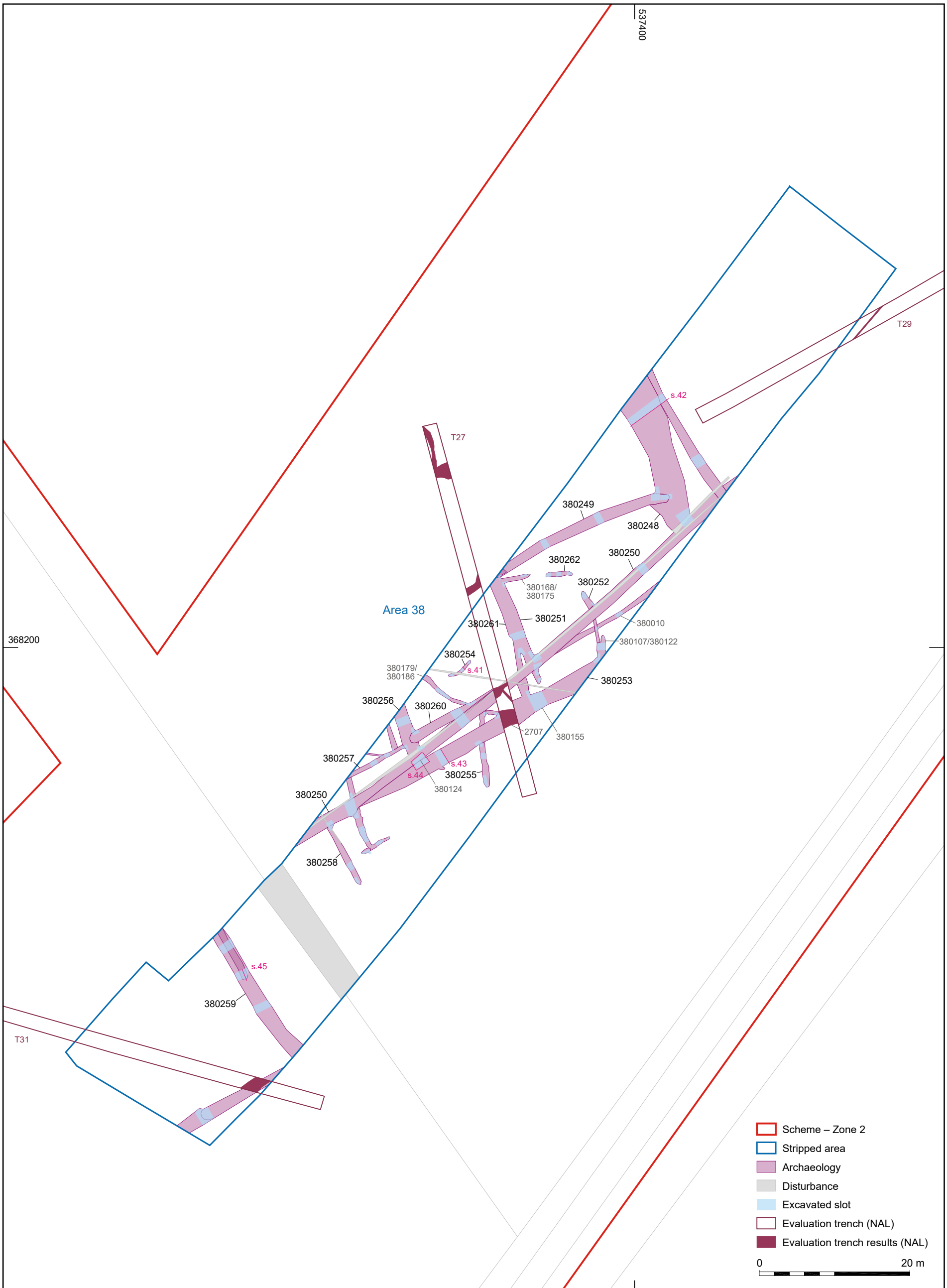
Area 21

368400

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Ridge and furrow
Excavated slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 38

Figure 45

537200

367800

T28

220098

220097

220107

220087
s.48

220114

Area 22

220081/220083/
220085/220093

220048

T103

220032

220115

220023

220034

220025

220050

220077

220116

220017

s.46

220064

220117

220118

T102

220030/
220046

220013/
220069

s.47

Scheme – Zone 2
Stripped area
Archaeology
Excavated slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 22

Figure 46

537100

537200

366500

110008/
110010

110006

s.49

110004

Area 11

Scheme – Zone 2
Stripped area
Disturbance
Geology
Ridge and furrow
Excavated slot

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

537400

365800

T145

120018

120030/120050

120019

120015

120089

120056

120088

s.50

120087

Area 12

120063

s.51

120073

120039

120032

120048

120052

T114

Scheme – Zone 2

Stripped area

Archaeology

Disturbance

Geology

Excavated slot

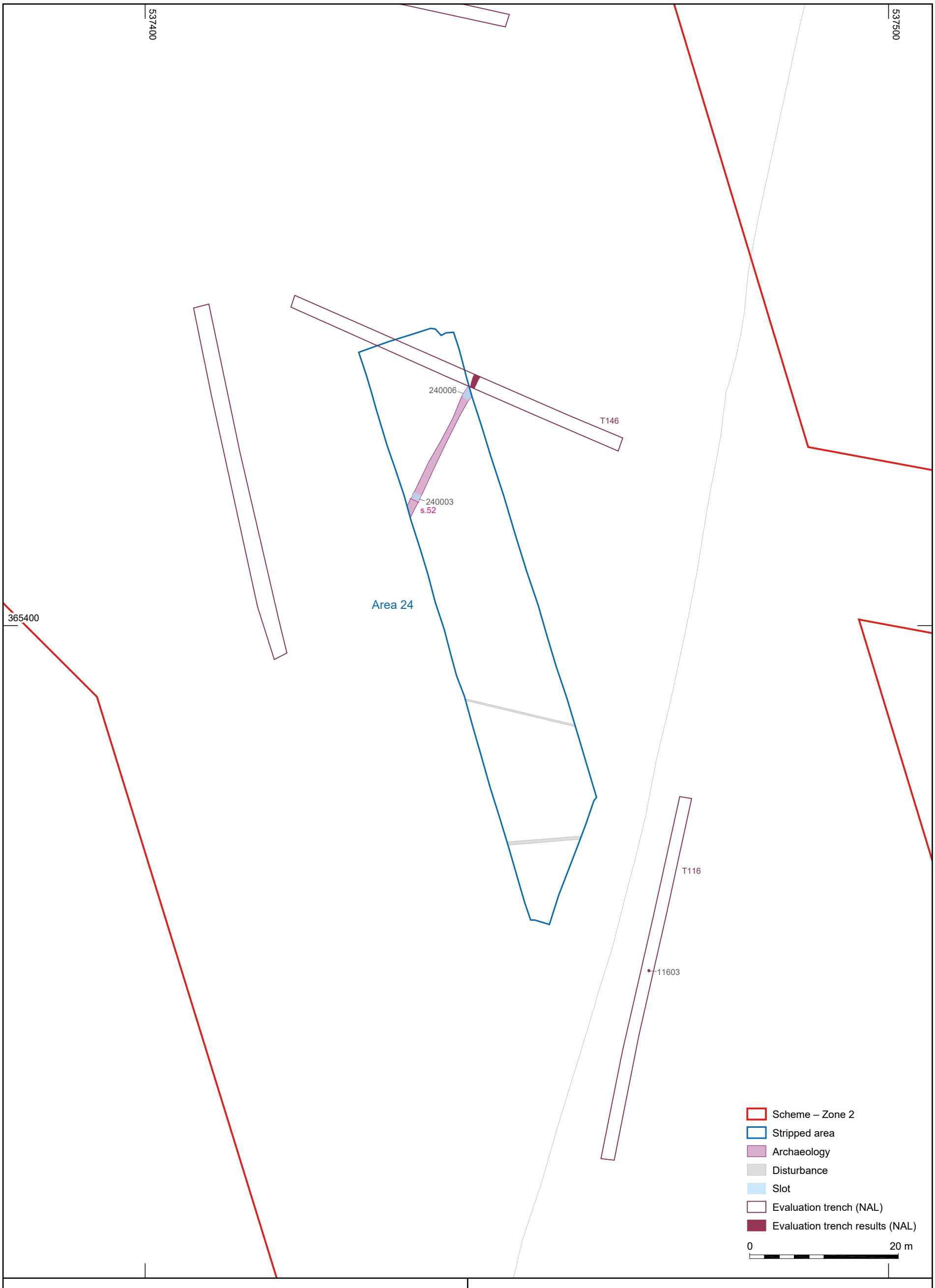
Evaluation trench (WA)

Evaluation trench results (WA)

0

50 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:1000 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 24

Figure 49

537400

537500

365000

250007

250009

250005

250027

s.53

250011

250003

250025

250029

T120

T299

T39

T68

Area 25

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Ridge and furrow
Slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

537400

537500

364700

260003/
260005

s.54

260007

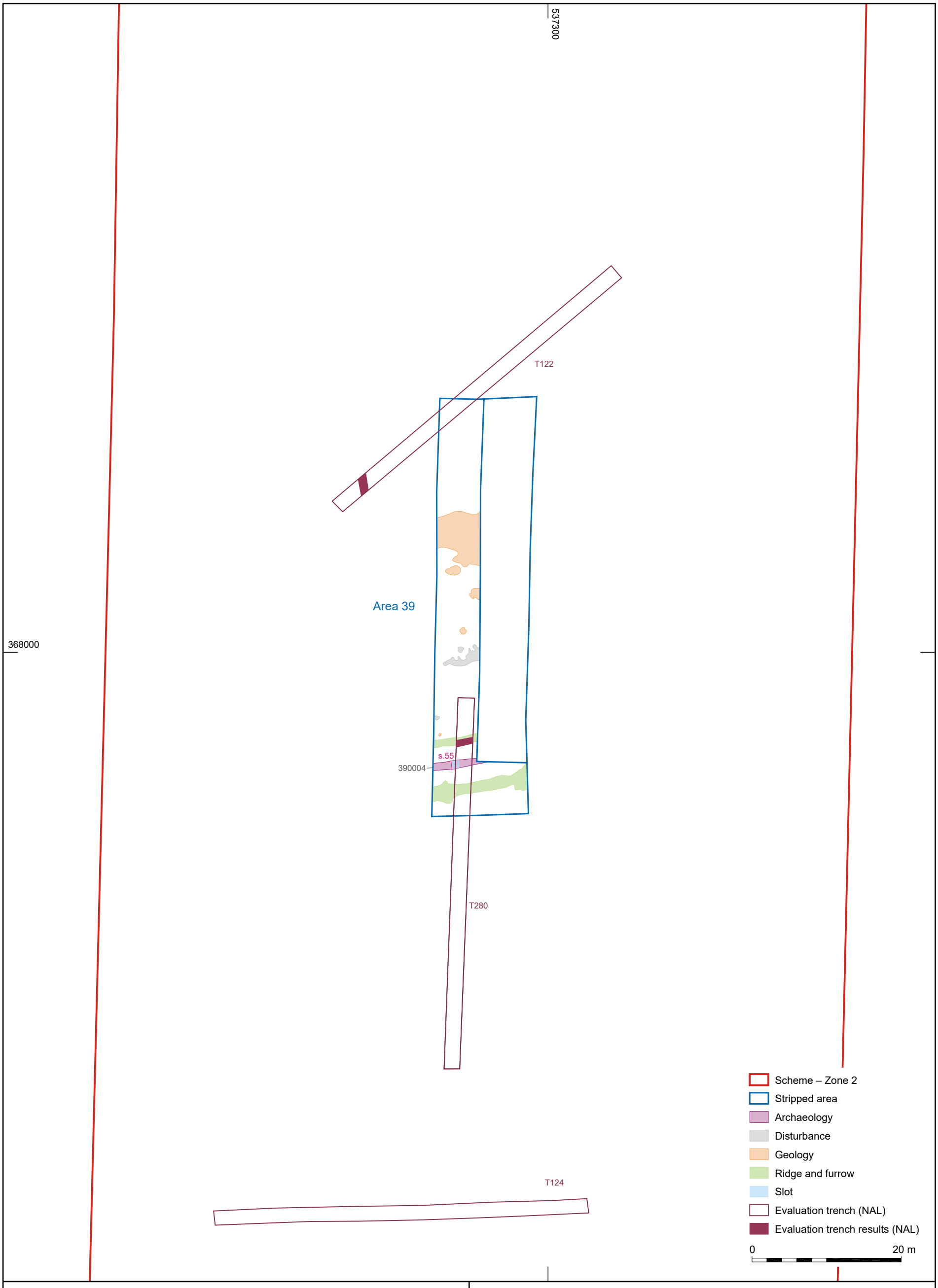
T118

Area 26

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Ridge and furrow
Slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		



Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 39

Figure 52

536900

537000

362500

T123

280006

280036/280064

280008

280018

280054

280133

Area 28

280058

280070

280134

s.57

280135

280137

T41

340170

340169

s.56

340124/
340126

s.61

340168

340087

340012

s.58

340171

340171

Area 34

362400

340172

340104/340121

340173

s.59

340038

s.60

340174

T126

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Geology
Ridge and furrow
Bioturbation
Slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Areas 28 and 34

Figure 53

536200

536300

362100

290040/
290049

290010/
290051

T300

290014/
290033

290062

T132

s.64

290058

290004/
290018

290012/
290031

s.62

290043

290063

290045

s.63

290064

Area 29

290021

T130

Scheme – Zone 2
Stripped area
Archaeology
Disturbance
Slot
Evaluation trench (NAL)
Evaluation trench results (NAL)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

534950

361450

Area 40

400562

T46

400449

s.65

400541

400563

400422

400445

361400

400534

400528

400511

Scheme – Zone 2

Stripped area

Pre-alluvium feature

Slot

Evaluation trench (NAL)

Evaluation trench results (NAL)

0 10 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:250 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 40, pre-alluvium features

Figure 55

534950

361450

400372

400546

s.66

400545

Area 40

400547

T46

400548

400550

400549

400554

400555

400557

400241

s.67

400553

400536

400551

361400

400552

400556

400558

400559

400150

s.68

400148

400144

400146

400142

400378

400011

400561

400009

Scheme – Zone 2

Stripped area

Approximate extent of alluvium 400419

Archaeology

Disturbance

Geology

Slot

Evaluation trench (NAL)

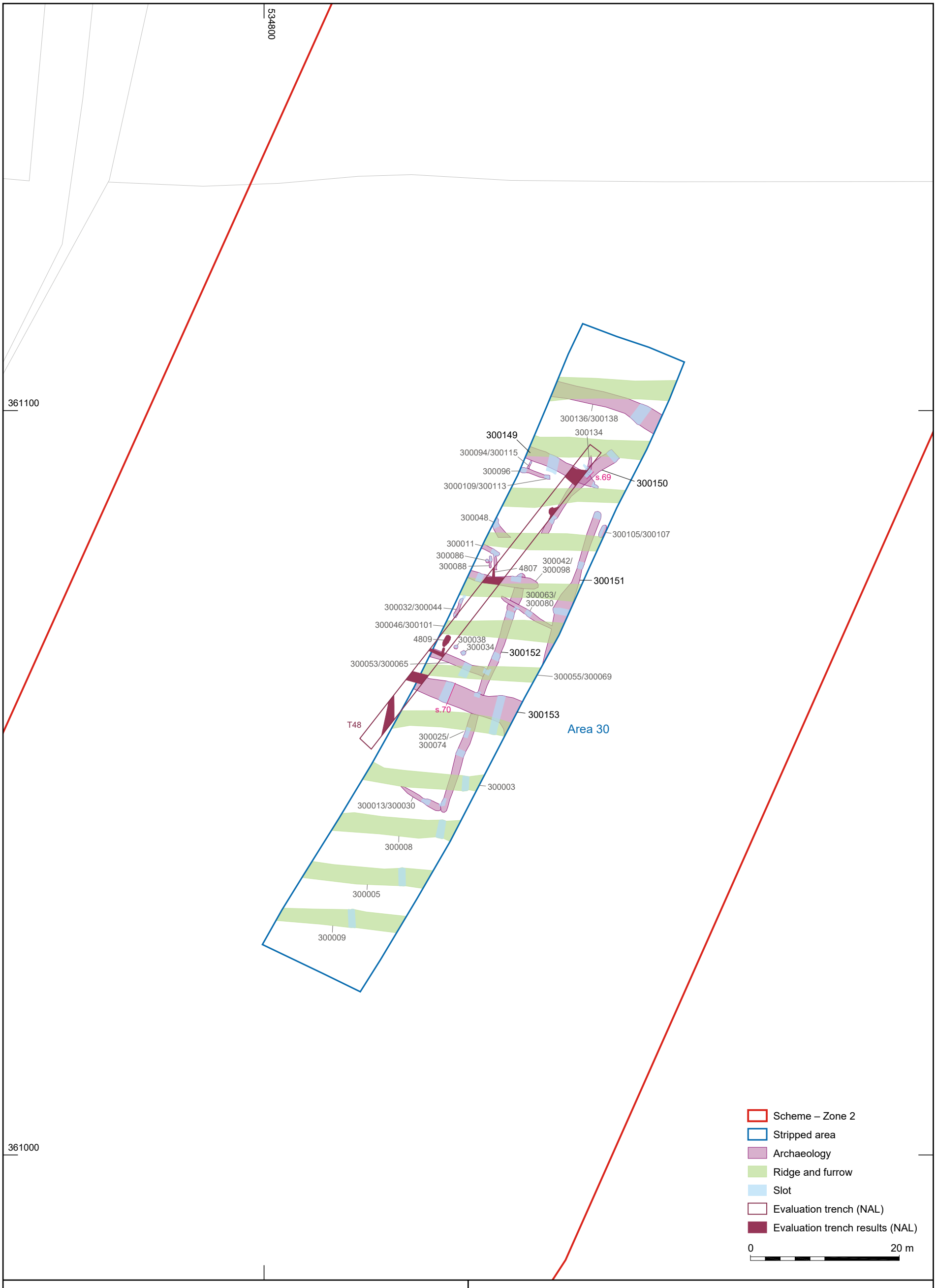
Evaluation trench results (NAL)

0 10 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:250 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_05_24		

Area 40, post-alluvium features

Figure 56



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

534650

360800

410021/410084

410008/410012

s.72

s.71

410012

410124

Area 41

410125

410126

T135

410115

410118

410116

s.74

13509

410120

410062/
410069

410095/410101

s.73

410121

360750

410107

410089

Scheme – Zone 2

Stripped area

Archaeology

Disturbance

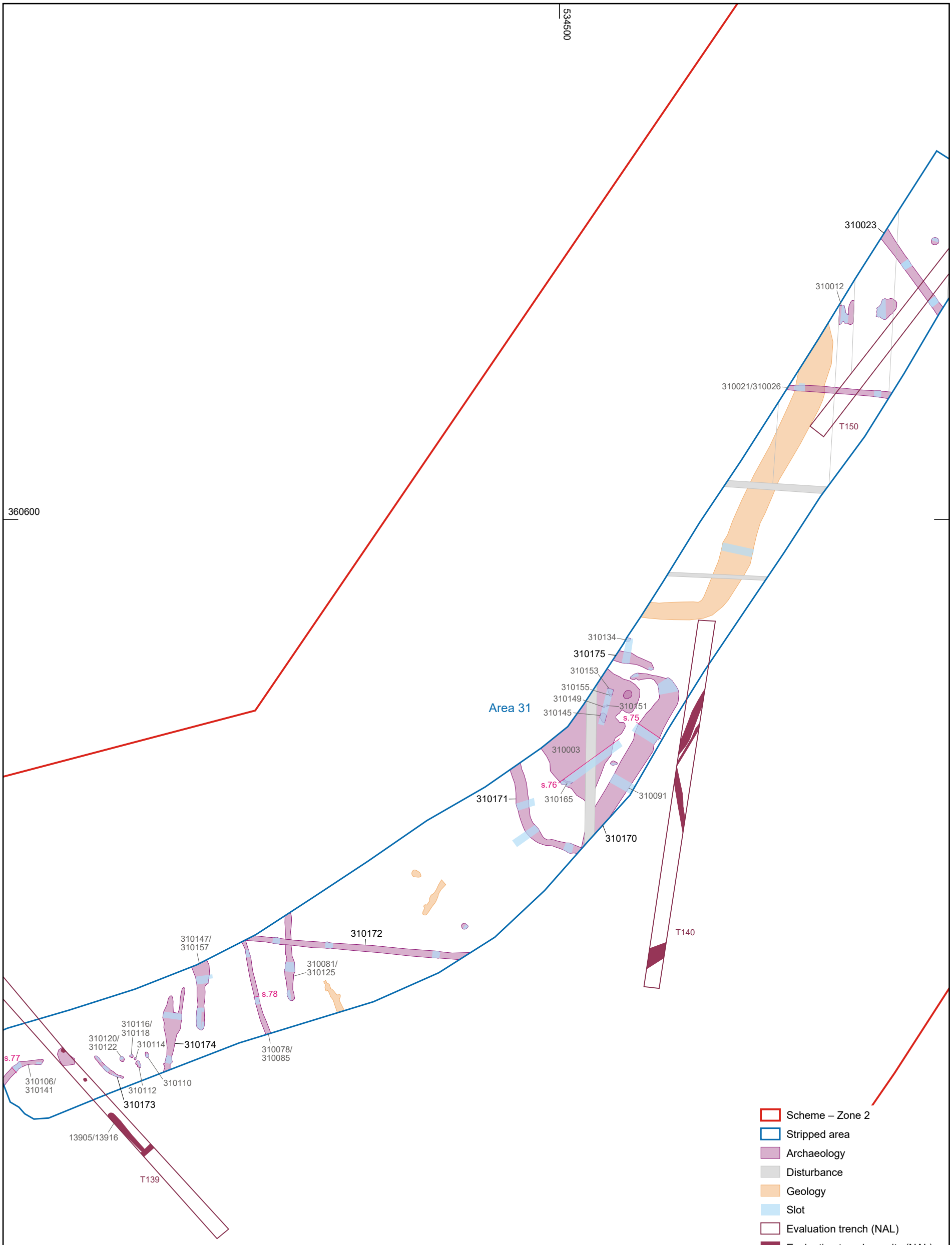
Slot

Evaluation trench (NAL)

Evaluation trench results (NAL)

0 10 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:250 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

525100

T427

349200

Area 50

505009

505005

505007

42805/42808

T428

building shown on historic mapping

Scheme – Zone 3

Stripped area

Archaeology

Evaluation trench (WA)

Evaluation trench results (WA)

0 20 m

349100

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 50

Figure 60

346200

521800

510012

510010

T465

510008

510006

Area 51

346100

T466

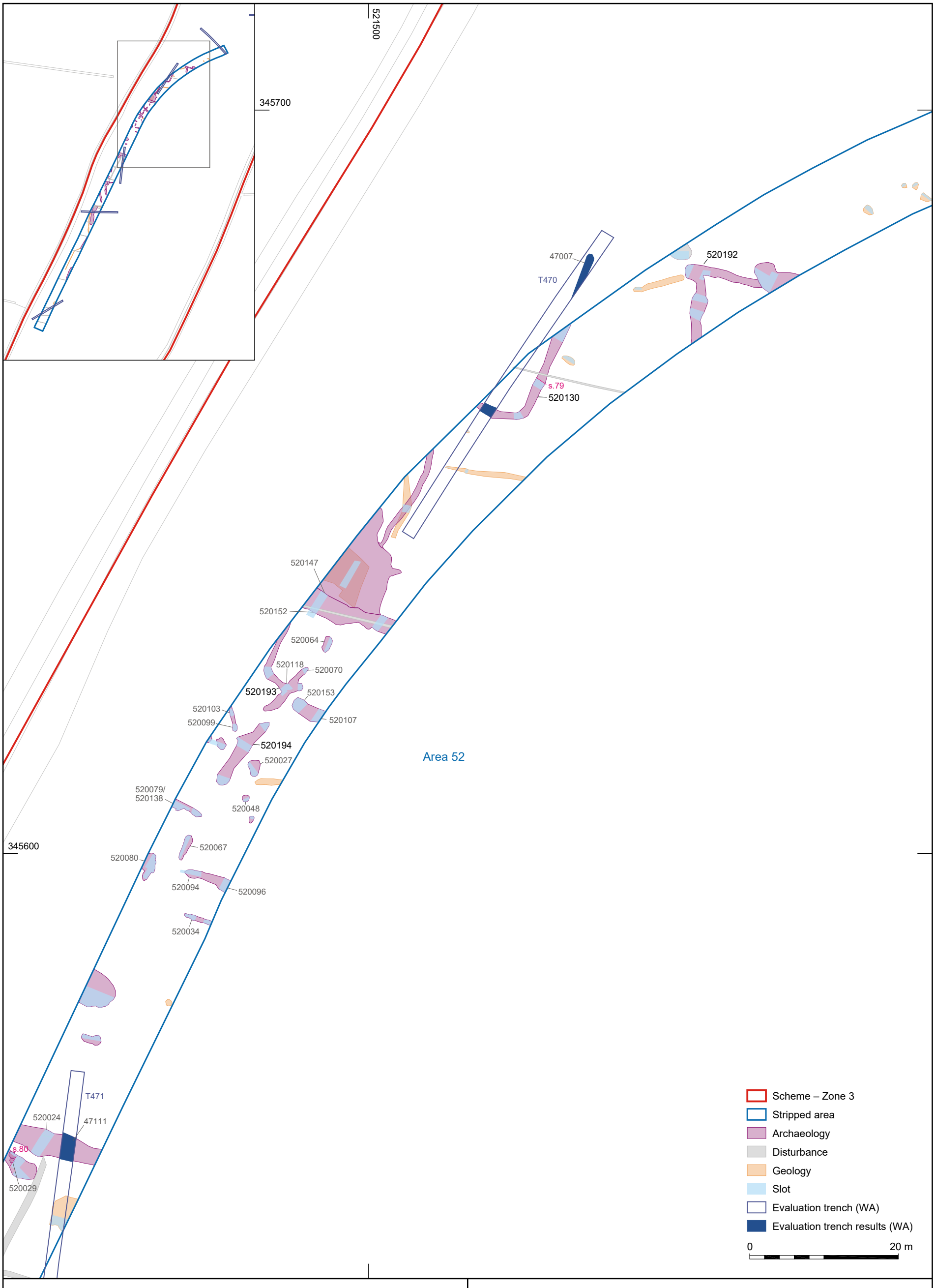
Scheme – Zone 3
Stripped area
Archaeology
Disturbance
Evaluation trench (WA)
Evaluation trench results (WA)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 51

Figure 61

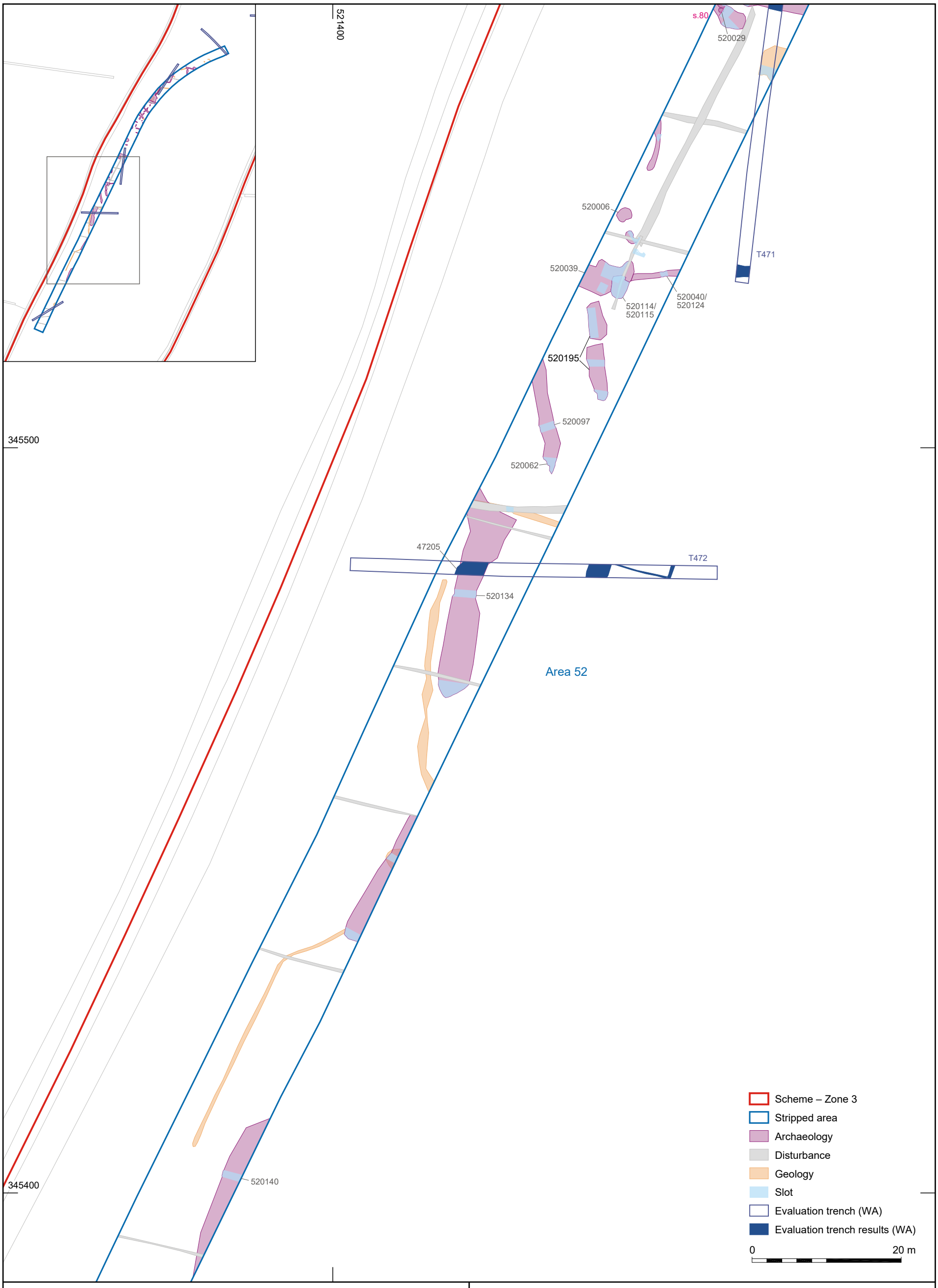


Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 52 (north)

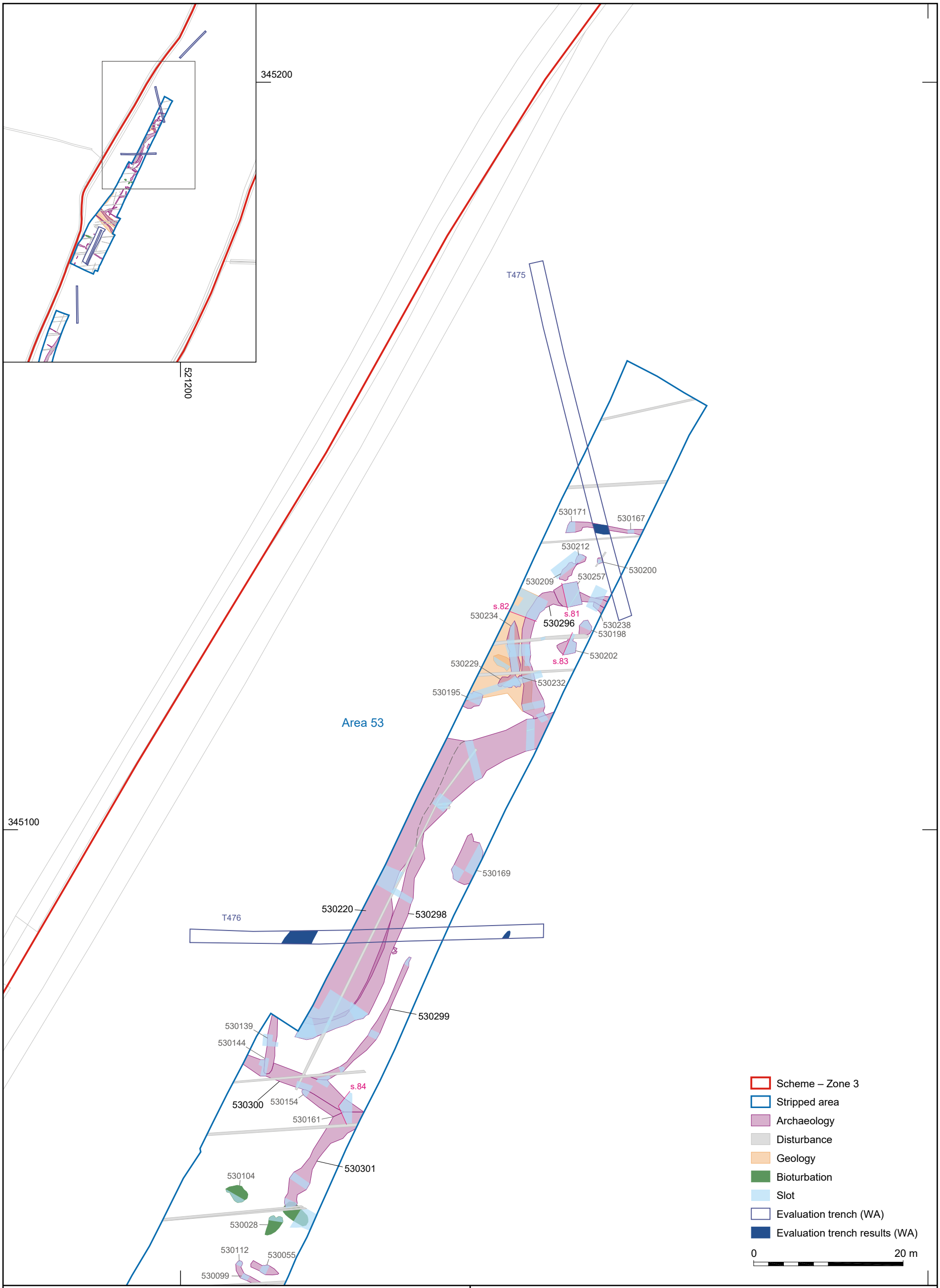
Figure 62



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 52 (south)

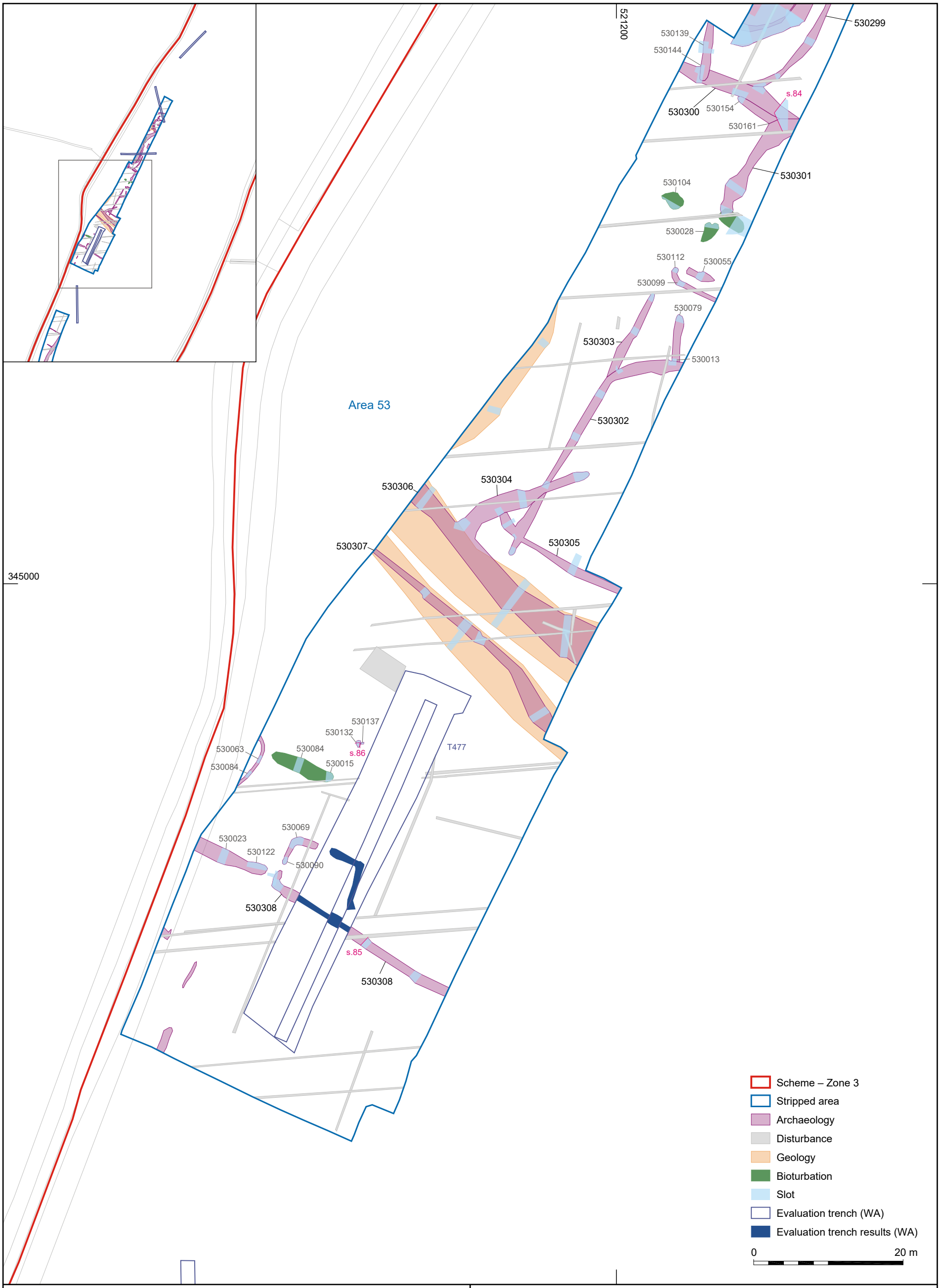
Figure 63



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 53 (north)

Figure 64

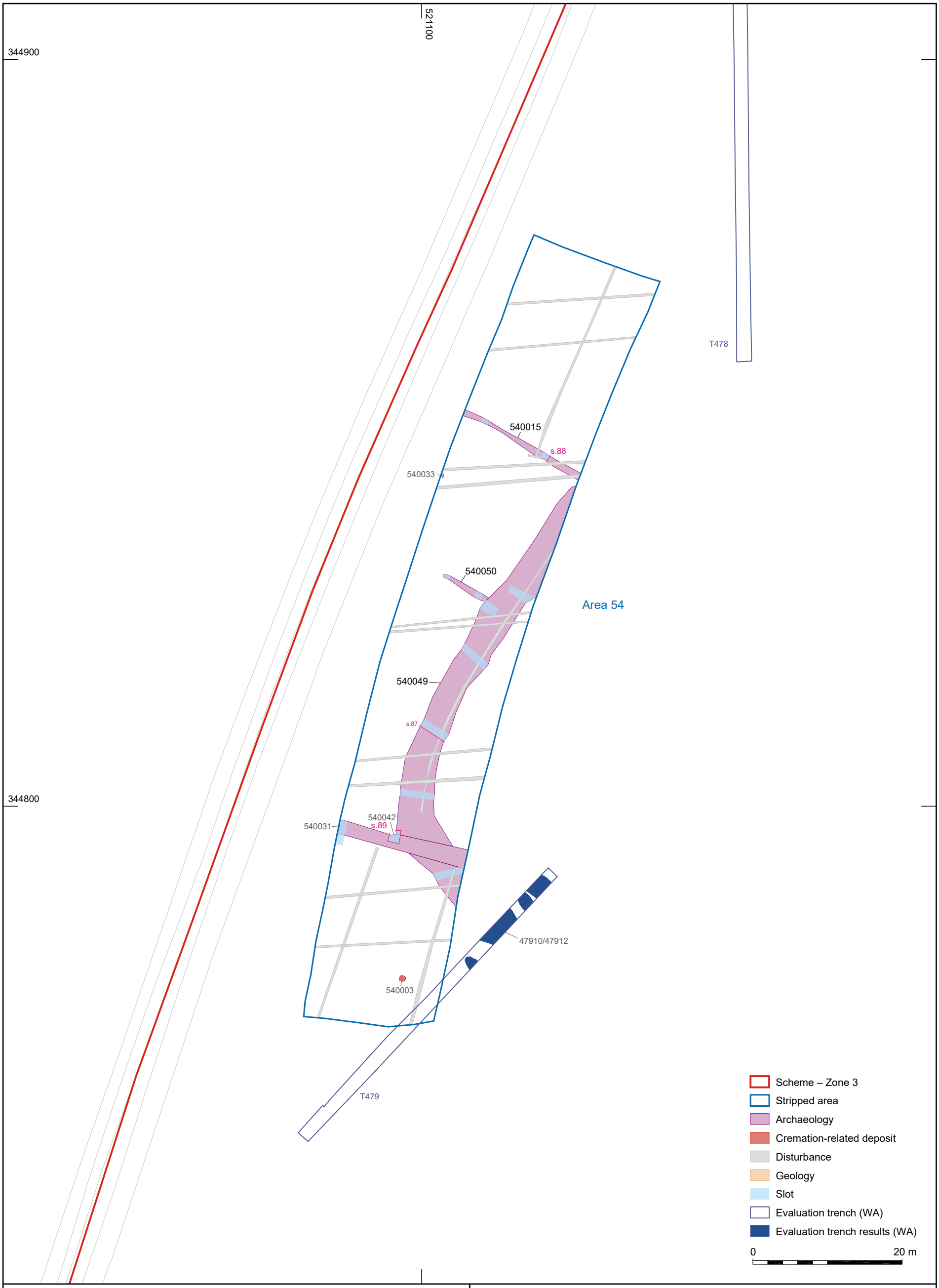


Coordinate system: OSGB36

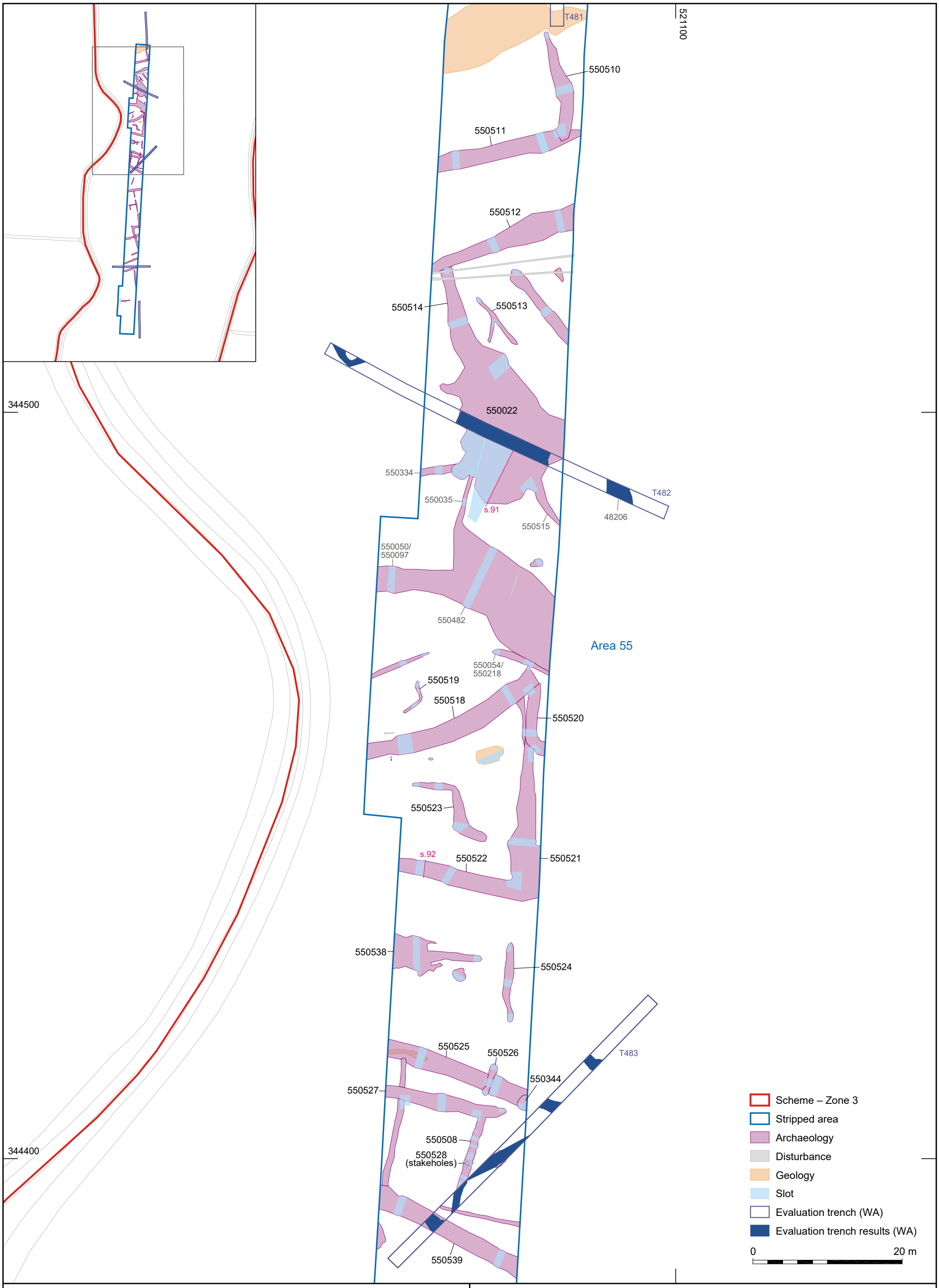
Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 53 (south)

Figure 65



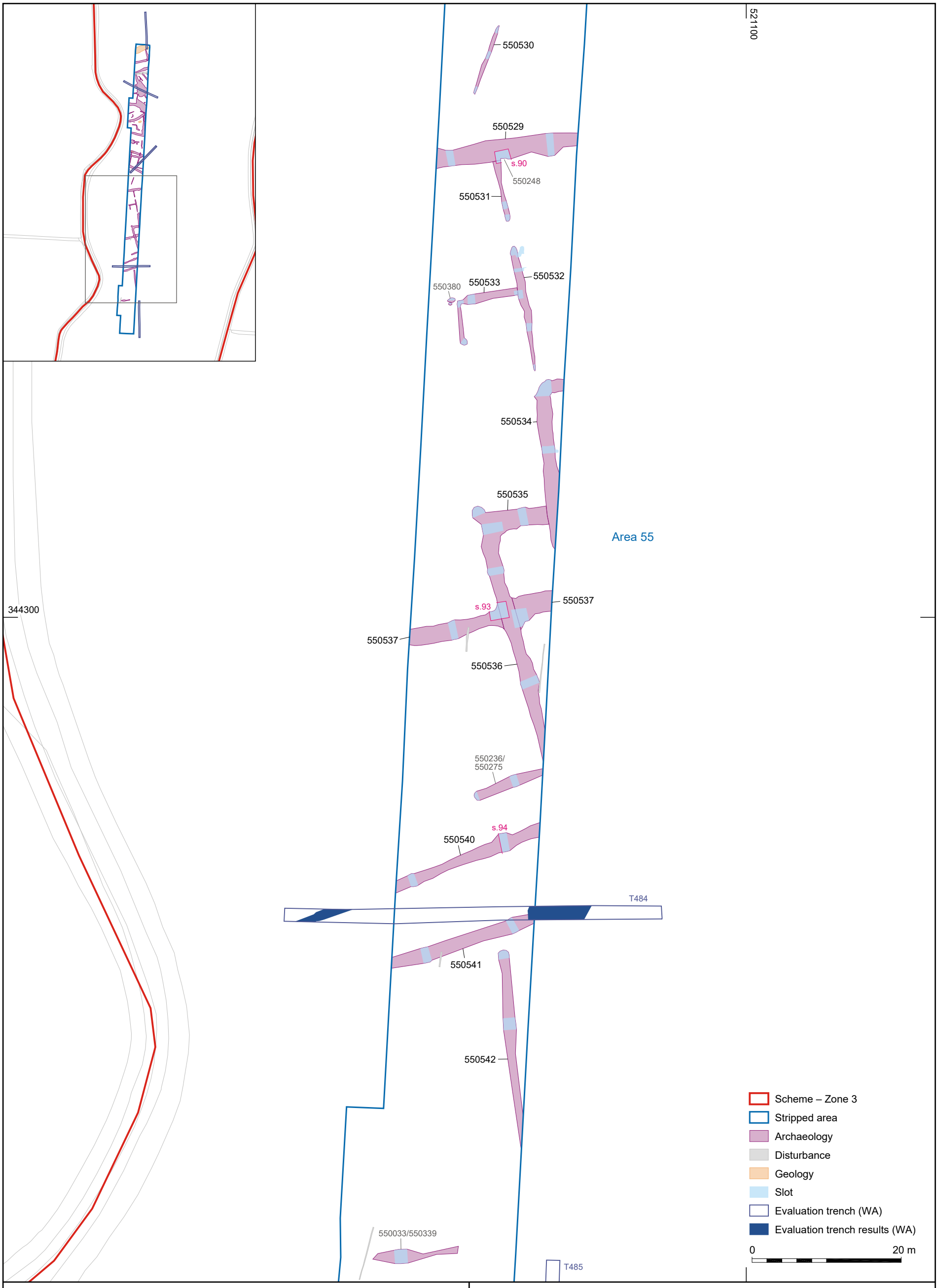
Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 55 (north)

Figure 67

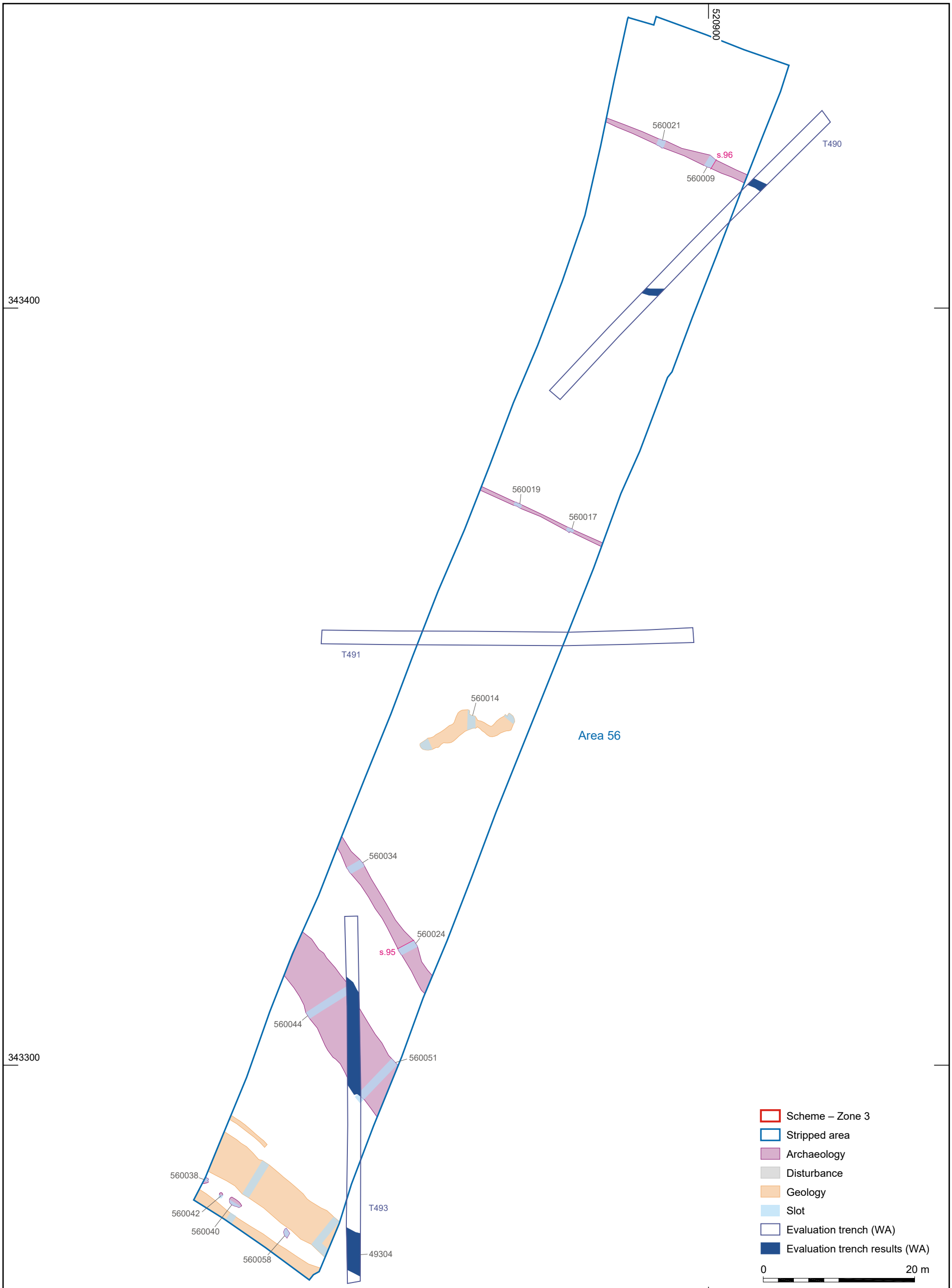


Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Area 55 (south)

Figure 68



Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

518600

518700

340100

340000

T519

570012

570006

Area 57

570041

570009

s.98

570003

s.97

570019

570031

570042

570017

570015

T520

T521

s.99

580006

580003

Area 58

T522

Scheme – Zone 3

Stripped area

Archaeology

Disturbance

Slot

Evaluation trench (WA)

Evaluation trench results (WA)

0 25 m

Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:750 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Areas 57 and 58

Figure 70

518300

518400

339500

339400

T524

590098

52508

T525

52511

590050

590056

T526

s.101

590058

590032

52610

Area 59

52715

T527

590015

590038

s.100

590097

590068

s.102

Scheme – Zone 3
Stripped area
Archaeology
Disturbance
Geology
Slot
Evaluation trench (WA)
Evaluation trench results (WA)

0 20 m

Coordinate system: OSGB36

Date:	02/05/2023	Revision Number:	0
Scale:	1:500 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

518200

518400

337400

Area 60

Area 61

T544

T545

T546

600238

600239

600240

600098/
600184

600241

600242

600243

600245

600246

600244

600248

600250

600247

600251

600249

610061

54509

610011

610133

610138

610137

610093

610101/610116

610136

610114

s.105

610135

610106

s.104

s.103

Scheme – Zone 3

Stripped area

Archaeology

Disturbance

Geology

Bioturbation

Slot

Evaluation trench (WA)

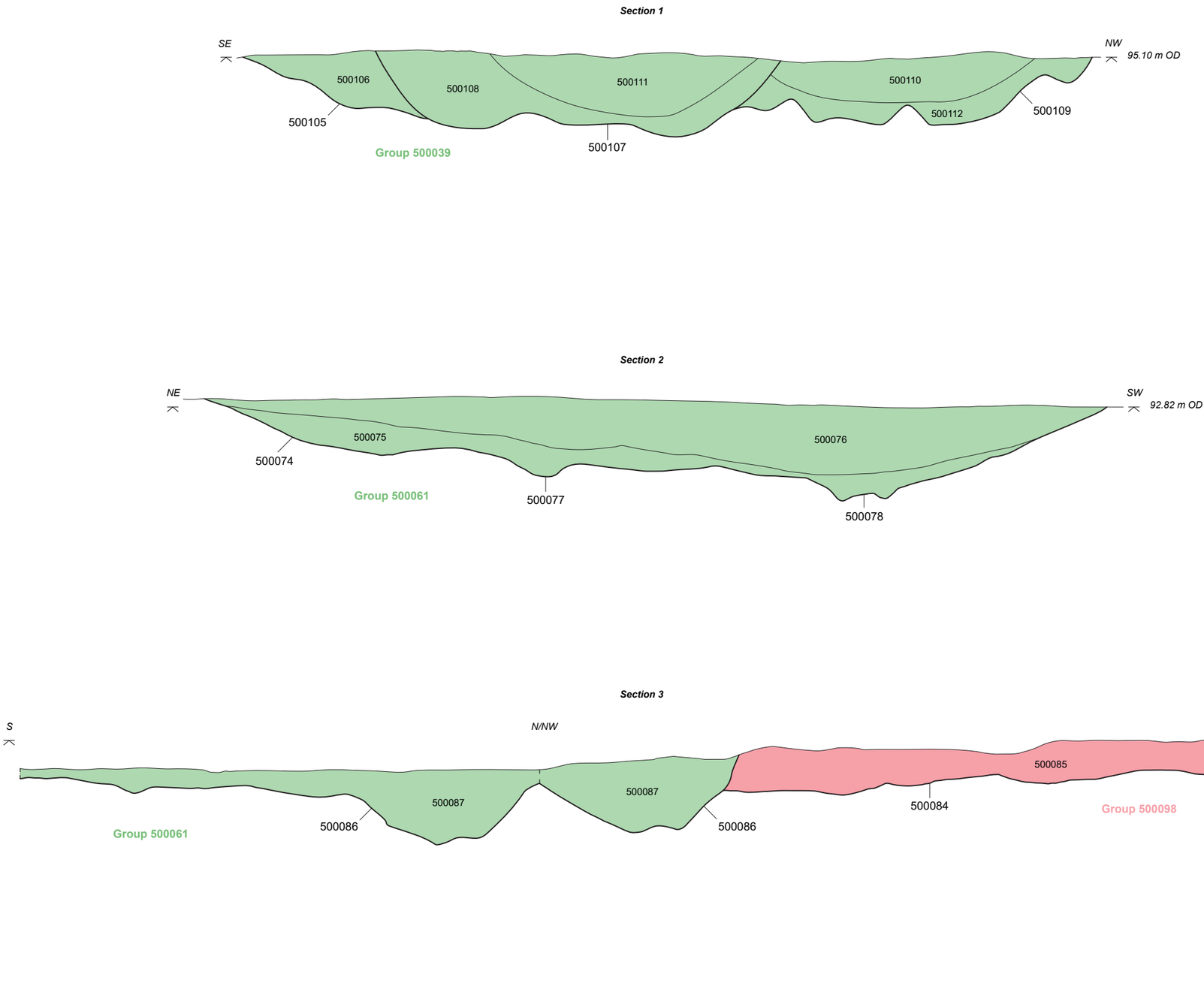
Evaluation trench results (WA)

0 20 m

Date:	02/05/2023	Revision Number:	0
Scale:	1:750 at A3	Illustrator:	JD
Path:	S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14		

Areas 60 and 61

Figure 72

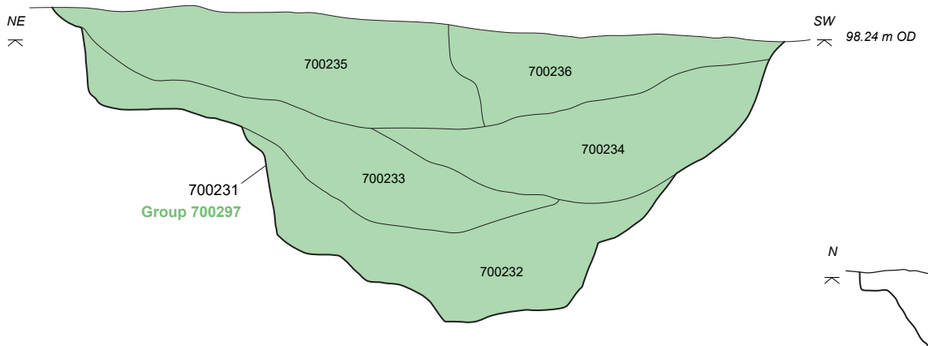


Date: 11/01/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A3

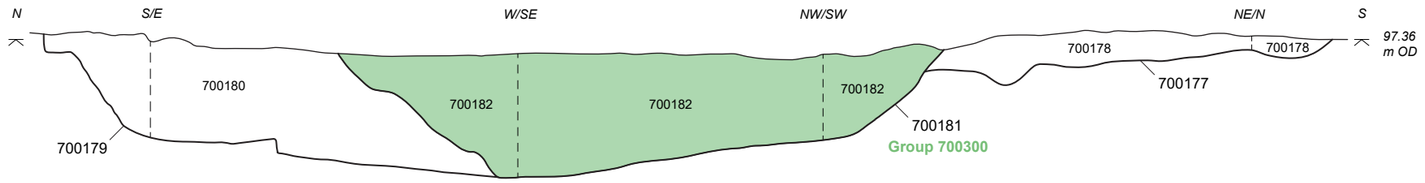
Figure 73: Area 5 sections

S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14

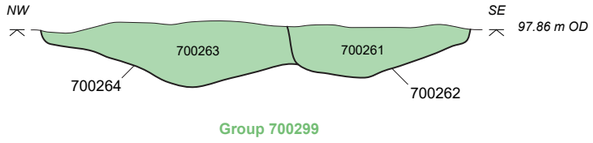
Section 4



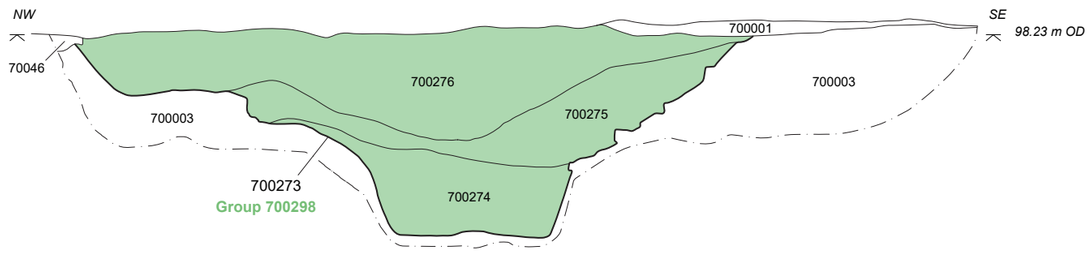
Section 5



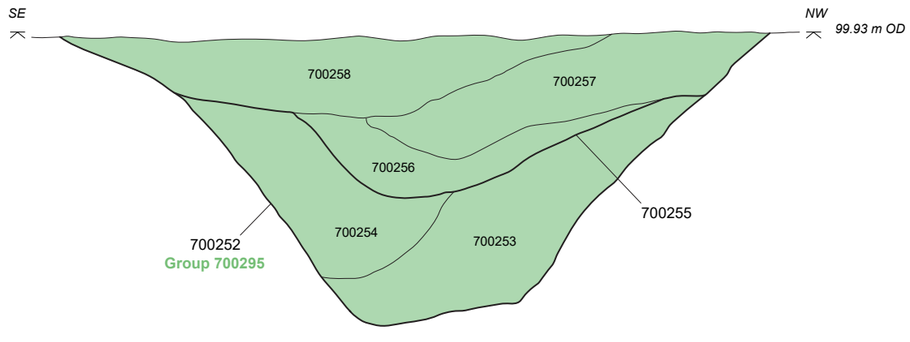
Section 6



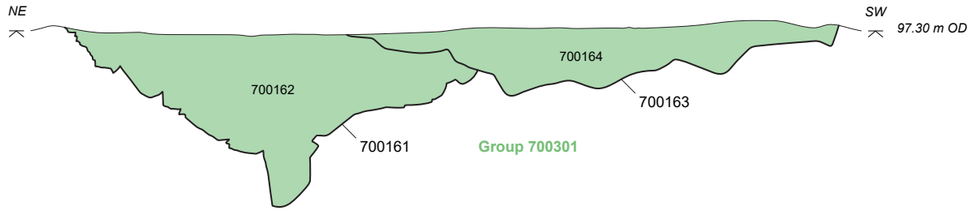
Section 7



Section 8



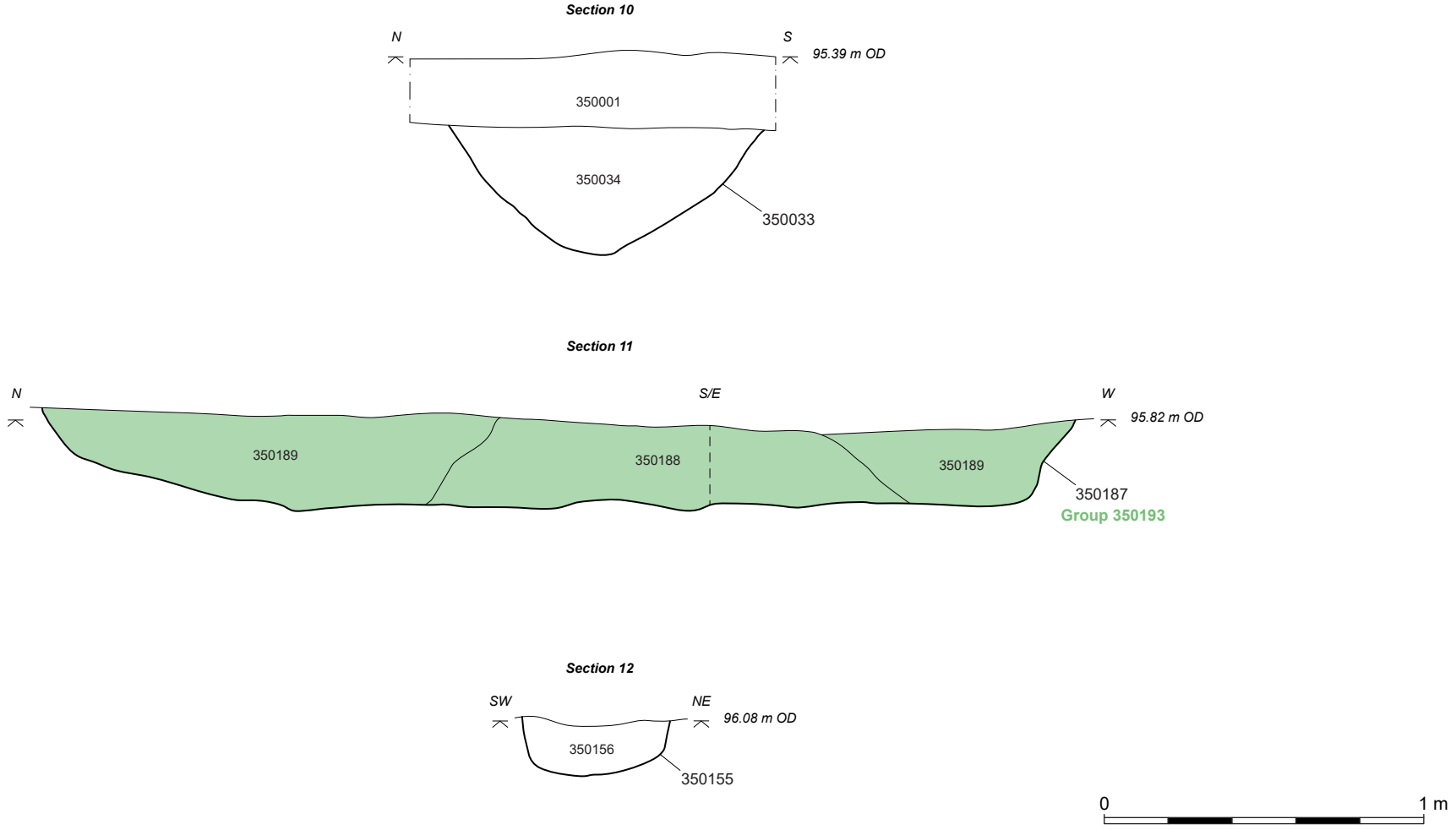
Section 9



0 1 m

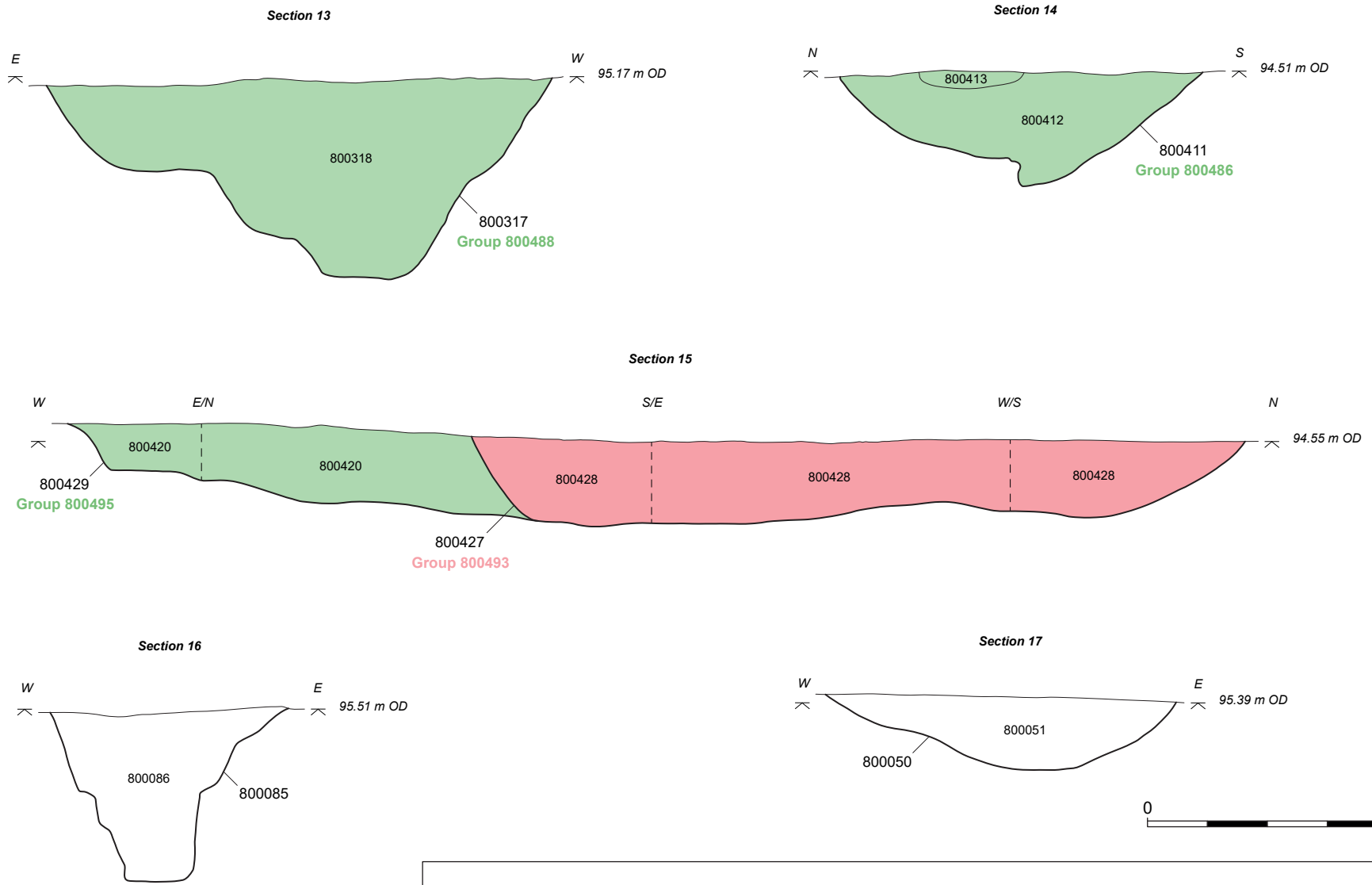
Date: 11/01/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A3

Figure 74: Area 7 sections



Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

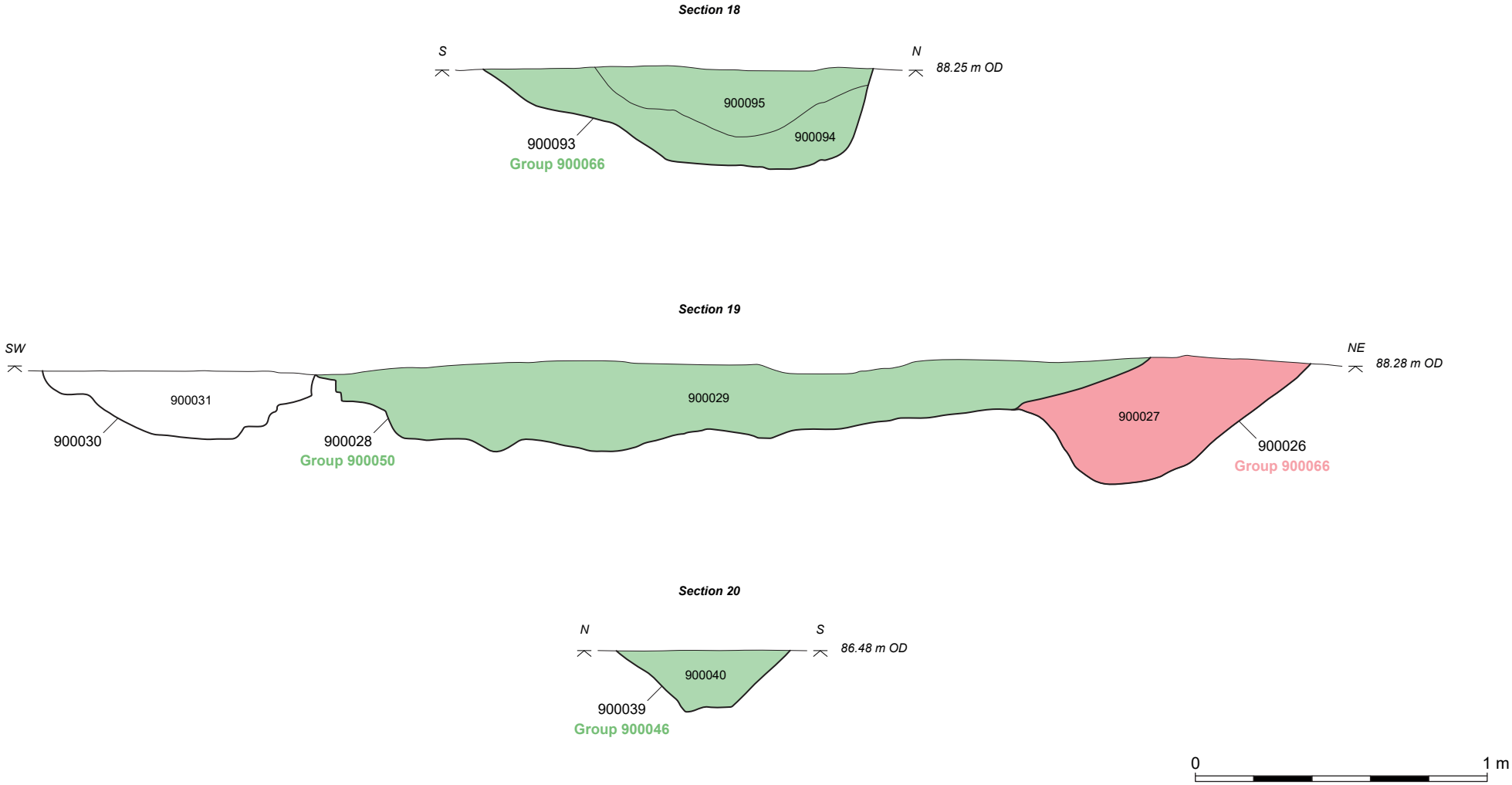
Figure 75: Area 35 sections



Date: 17/02/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A4

Figure 76: Area 8 sections

S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14



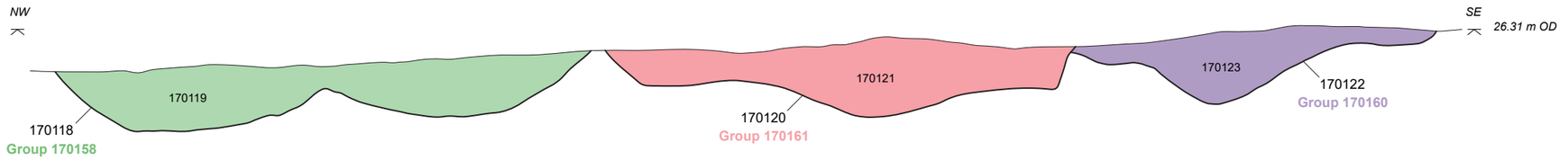
Date: 17/02/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A4

Figure 77: Area 9 sections

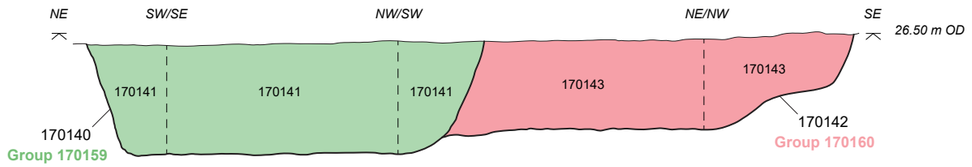
S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14

S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14

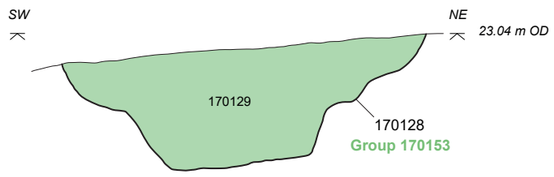
Section 21



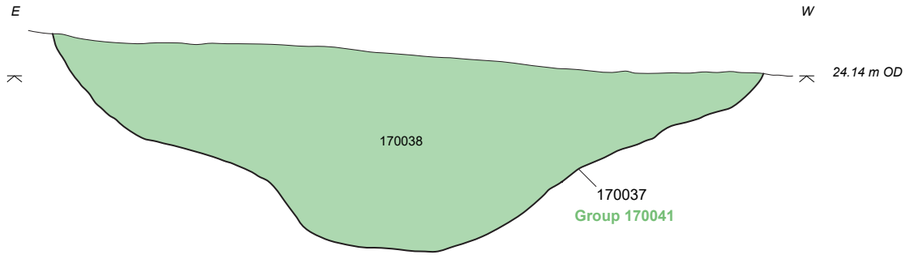
Section 22



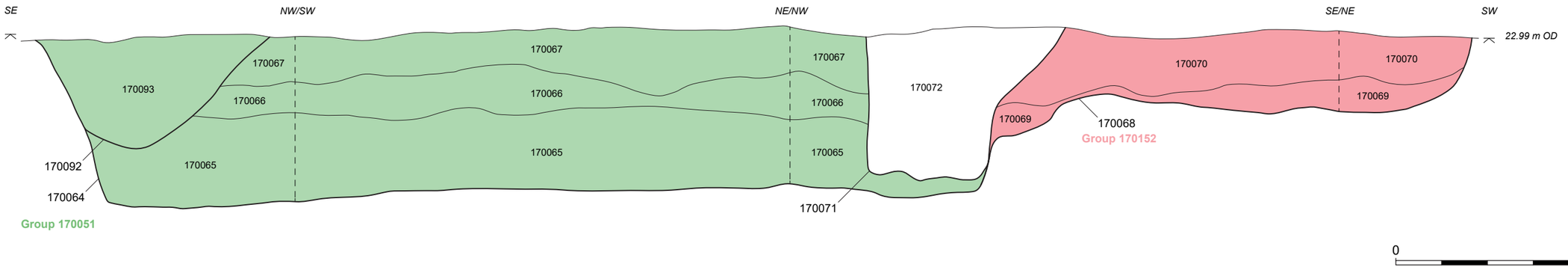
Section 23



Section 24



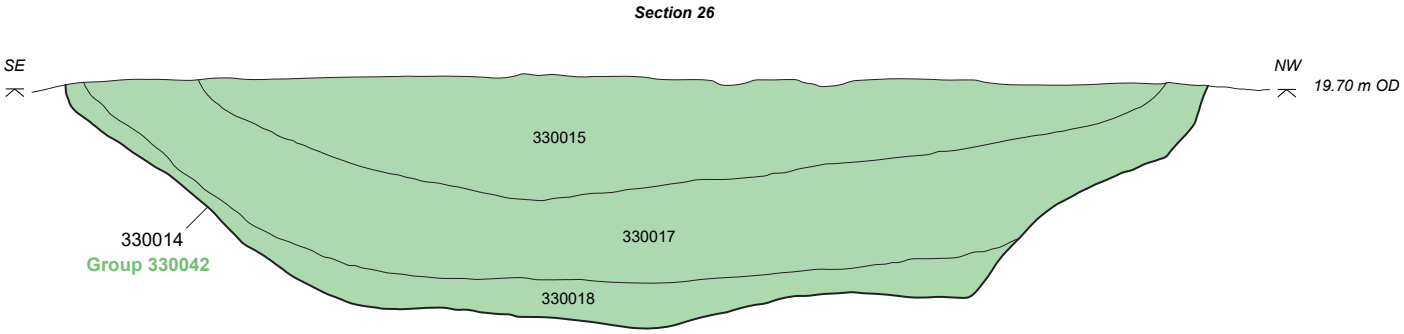
Section 25



0 1 m

Date: 10/01/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A3

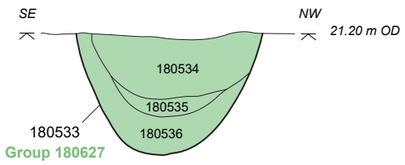
Figure 78: Area 17 sections



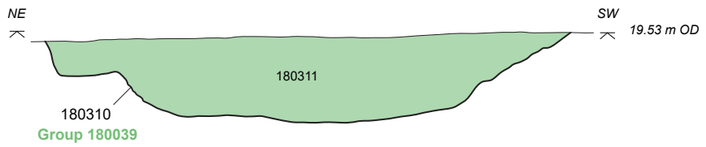
Date: 17/02/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A4

Figure 79: Area 33 section

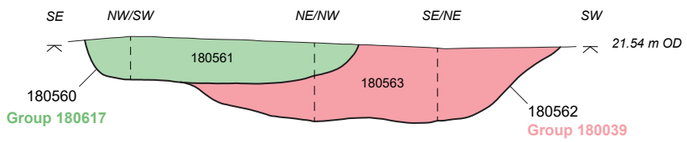
Section 27



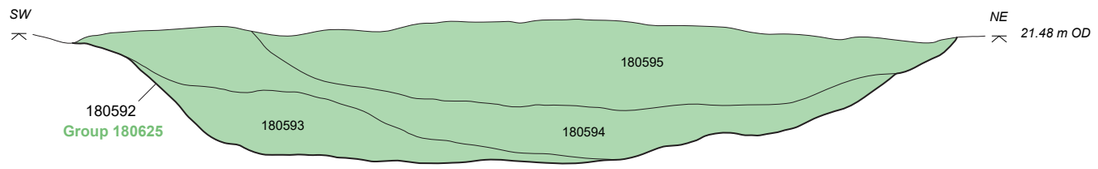
Section 28



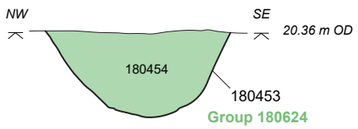
Section 29



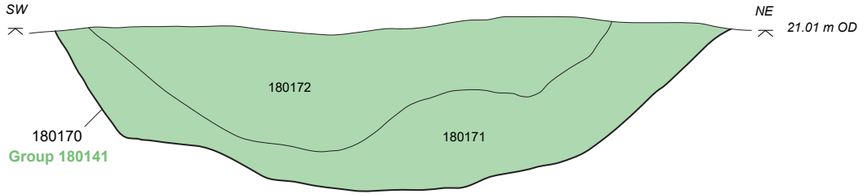
Section 30



Section 31



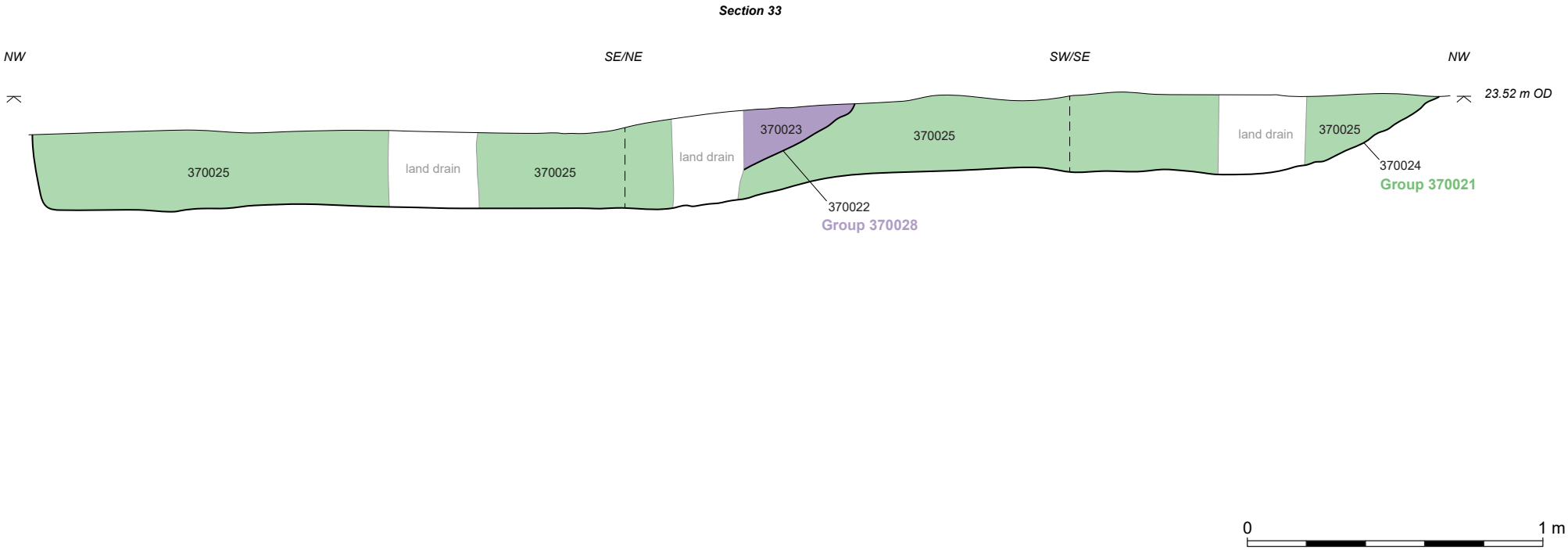
Section 32



0 1 m

Date: 12/01/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A3

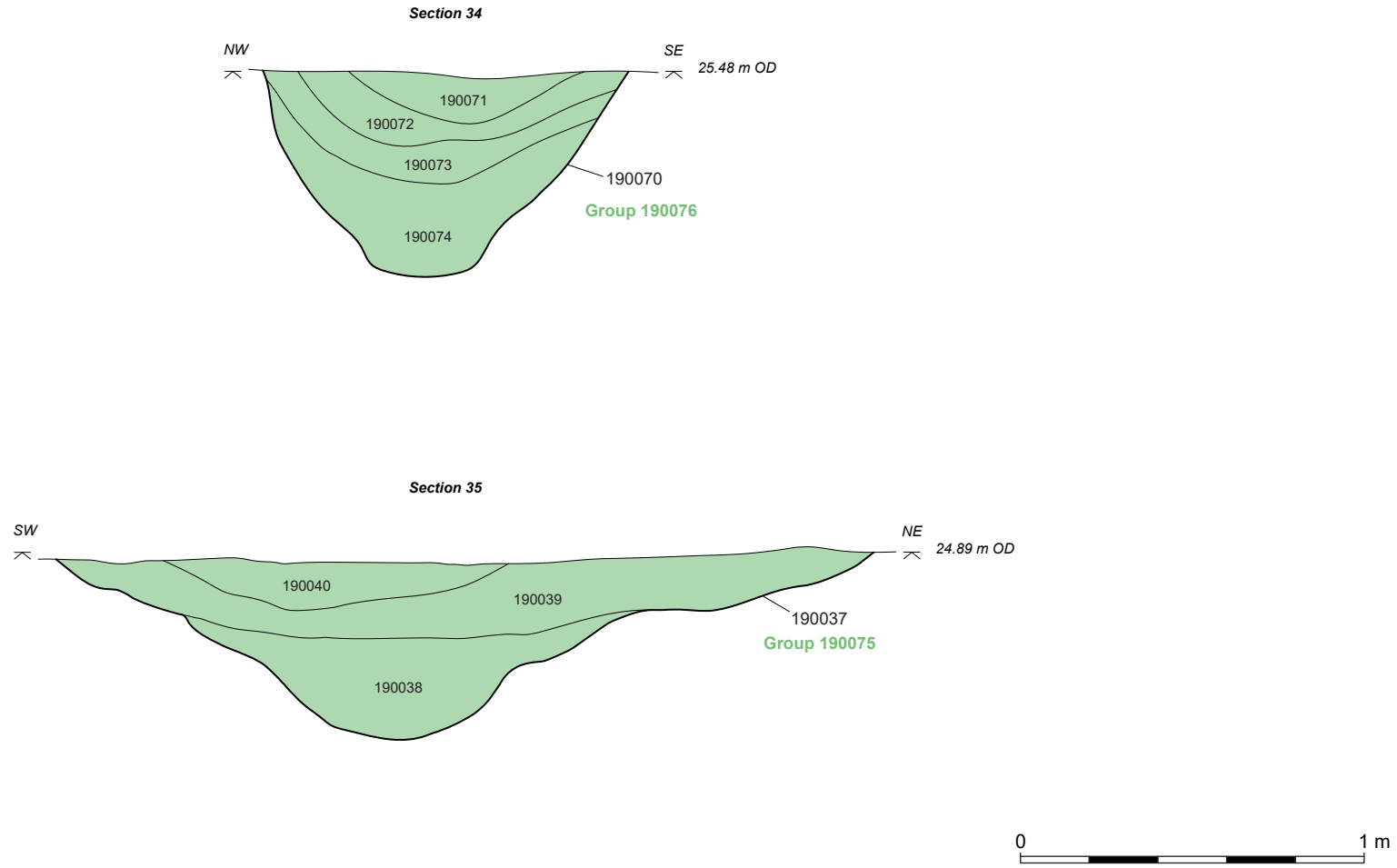
Figure 80: Area 18 sections



Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

Figure 81: Area 37 sections

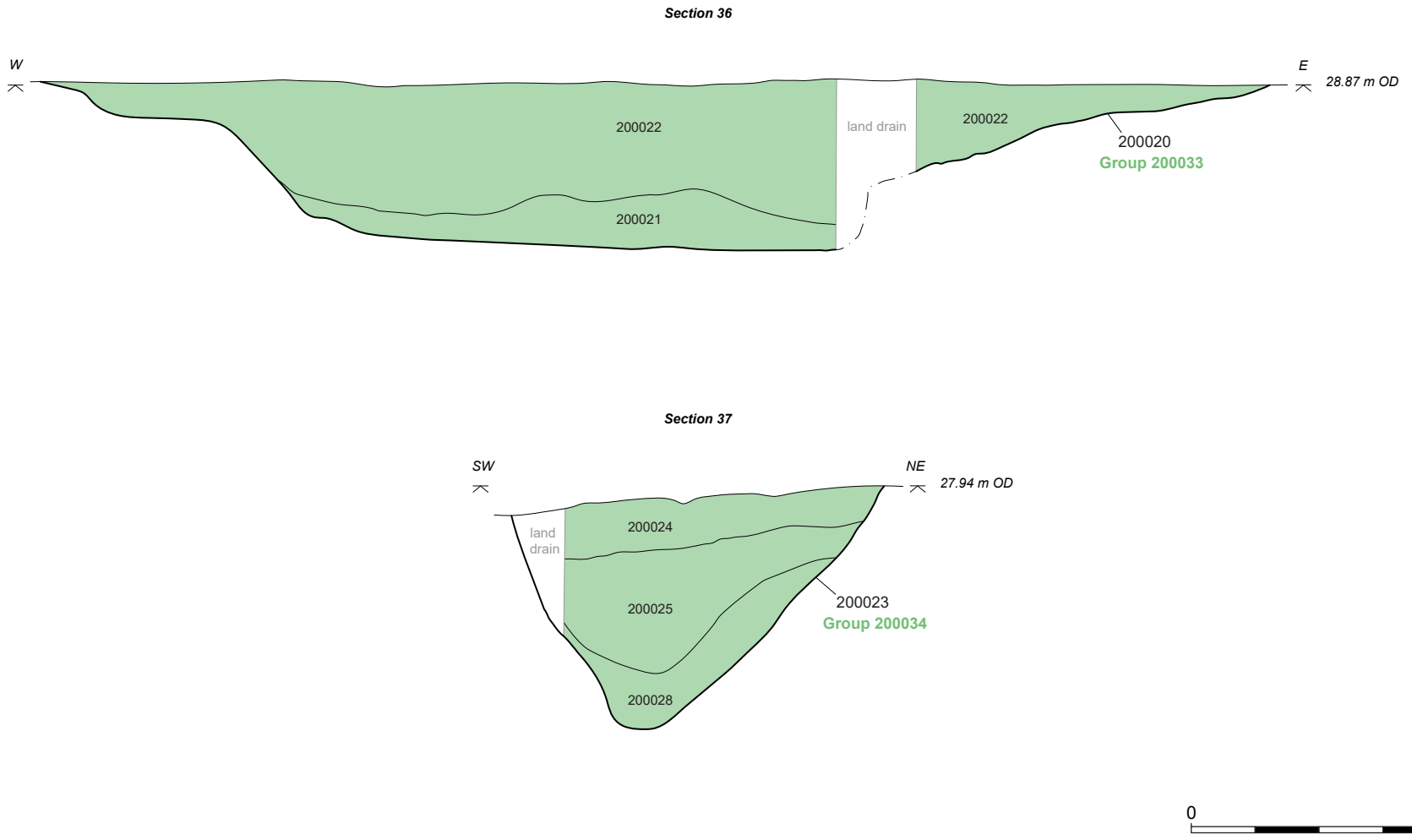
S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14



Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

Figure 82: Area 19 sections

S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14

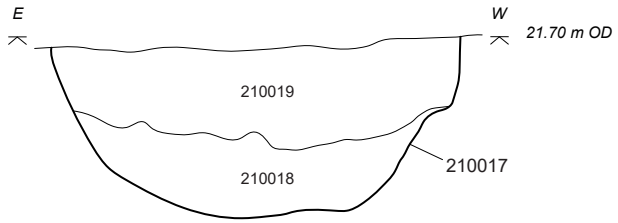


Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

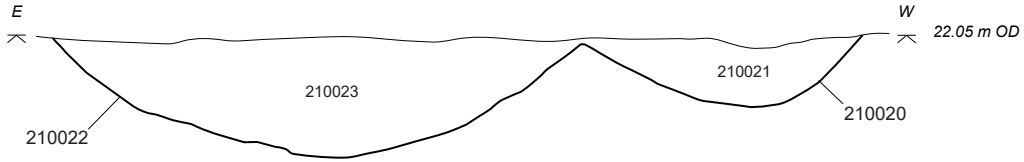
Figure 83: Area 20 sections

S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14

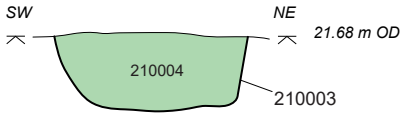
Section 38



Section 39



Section 40



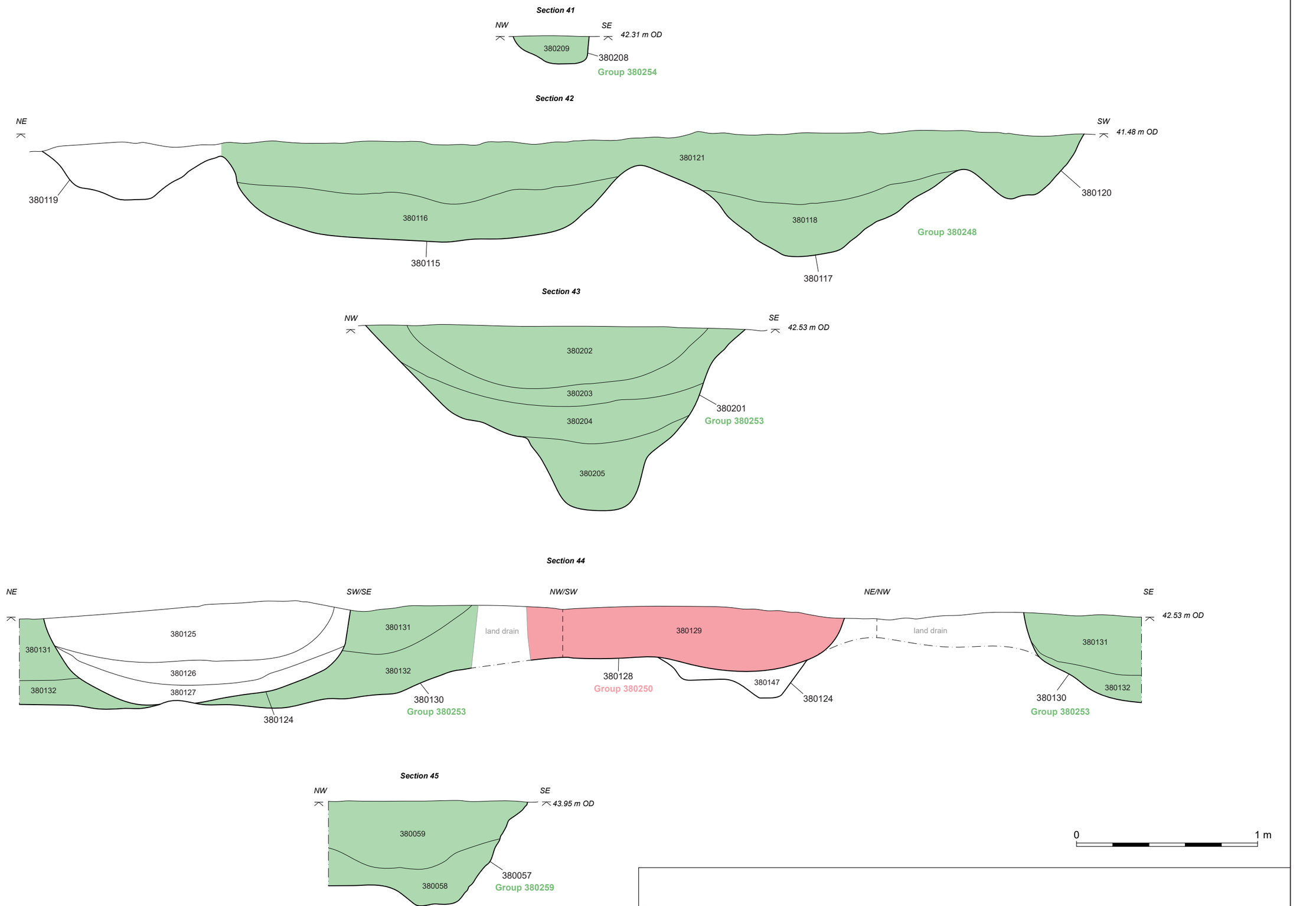
Group 210052

Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

Figure 84: Area 21 sections

S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14

S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14



Date: 18/01/2023	Created by: JD	Revision: 0	Scale: 1:20 at A3

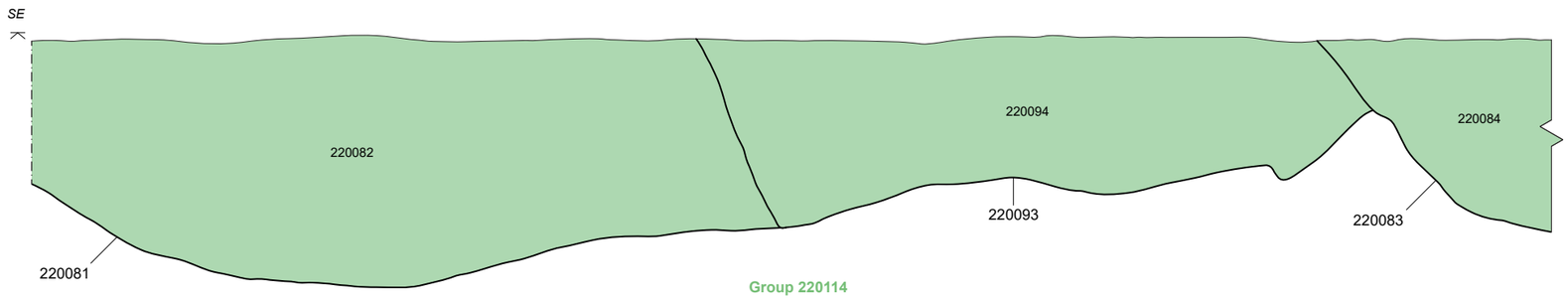
Figure 85: Area 38 sections

S:\PROJECTS\218714\Graphics_Office\Rep figs\PXA\2023_04_14

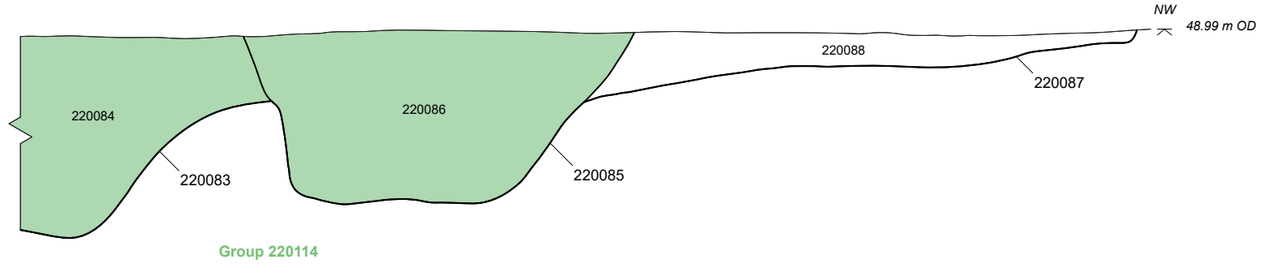
Section 46

Section 47

Section 48



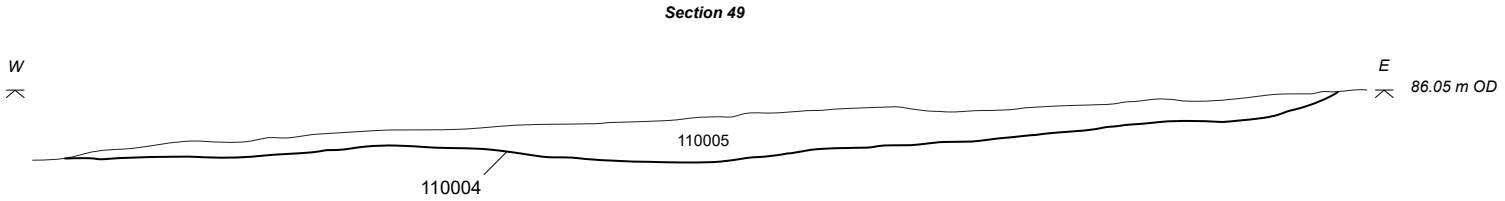
Section 48 cont.



0 1 m

Date: 18/01/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A3

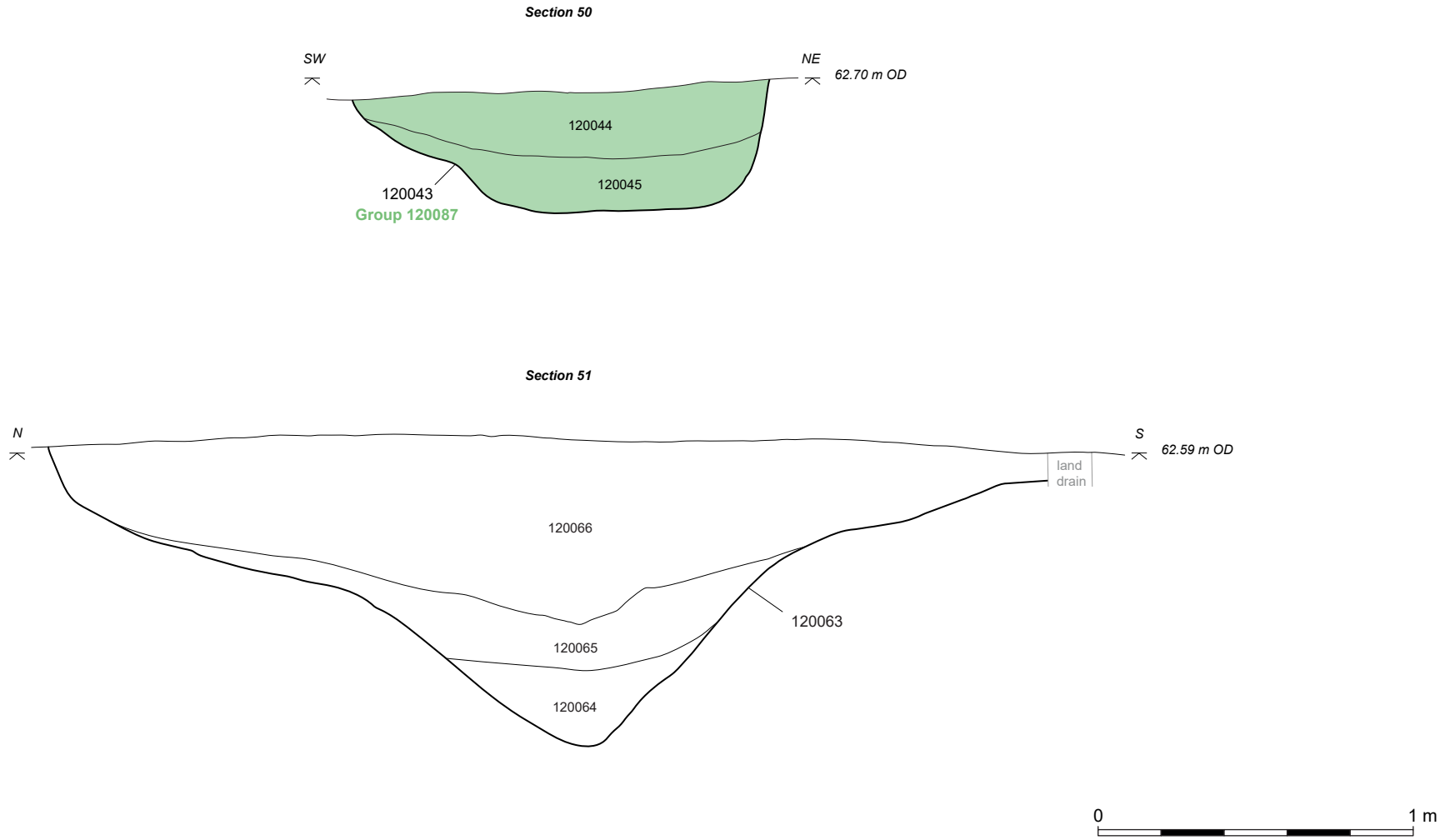
Figure 86: Area 22 sections



0 1 m

Date: 17/02/2023	Created by: CM/JD	Revision: 0	Scale: 1:20 at A4

Figure 87: Area 11 section



Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

Figure 88: Area 12 sections

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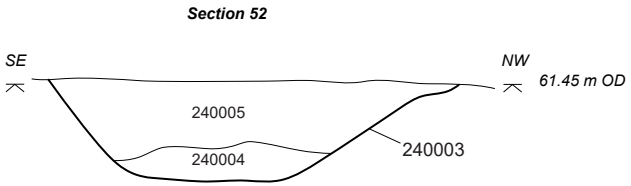

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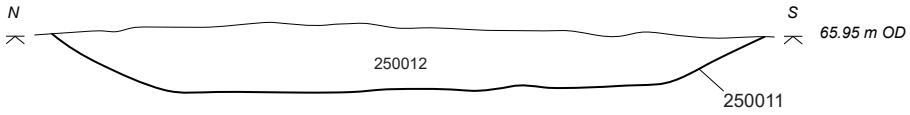
Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

Figure 89: Area 24 section

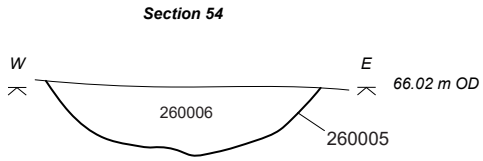
Section 53



0 1 m

Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

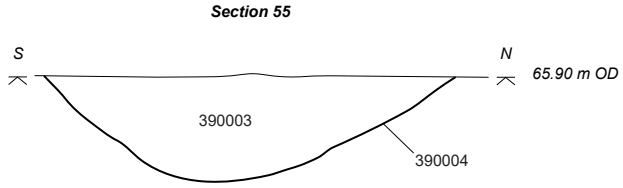
Figure 90: Area 25 section



0 1 m

Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

Figure 91: Area 26 section



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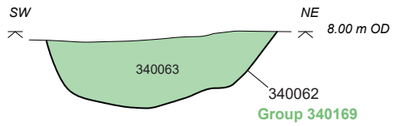
Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

Figure 92: Area 39 section

Section 56



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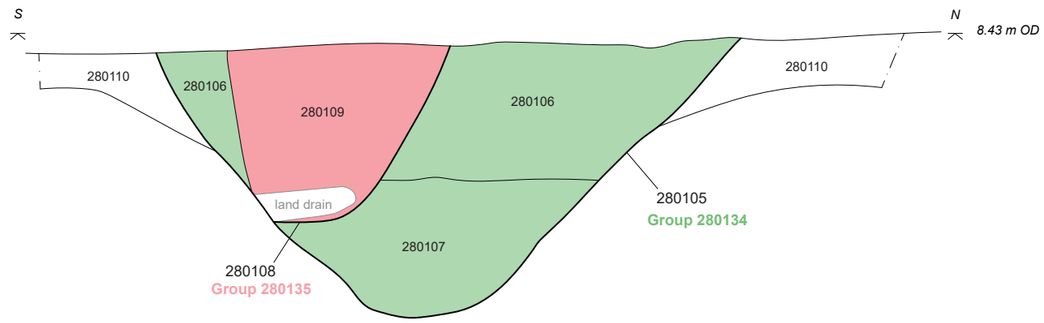
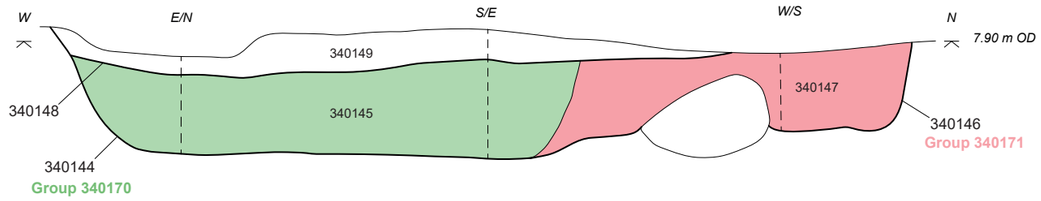
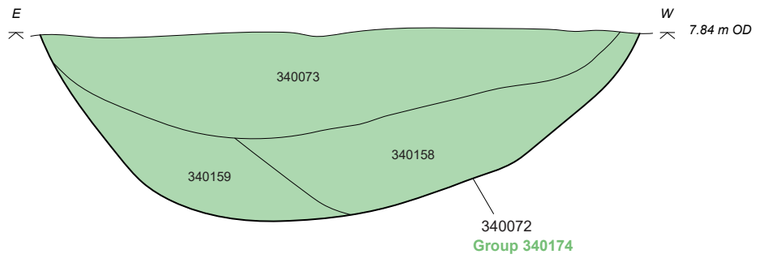


Section 58



Section 59

Section 60



Section 61

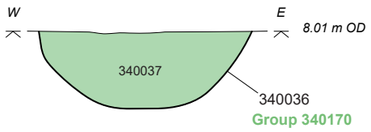


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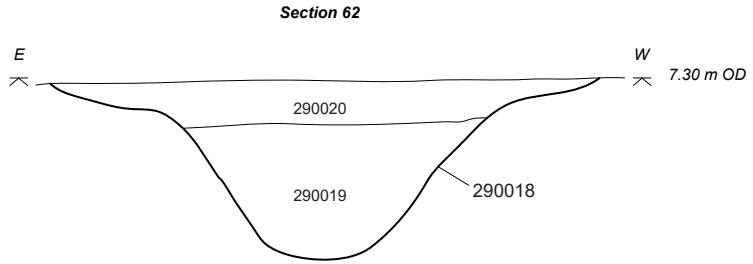
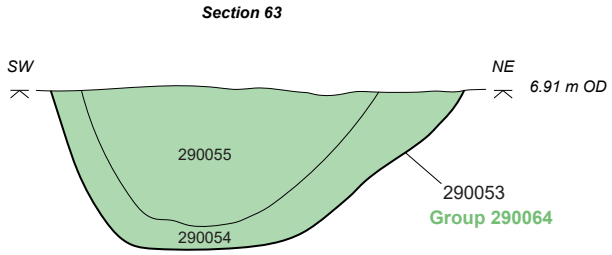
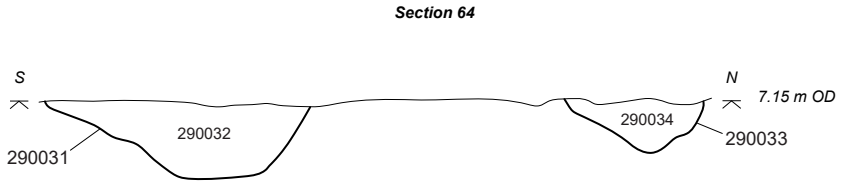
Figure 93: Area 28 and 34 sections







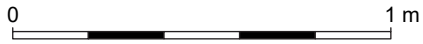


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Figure 94: Area 29 sections

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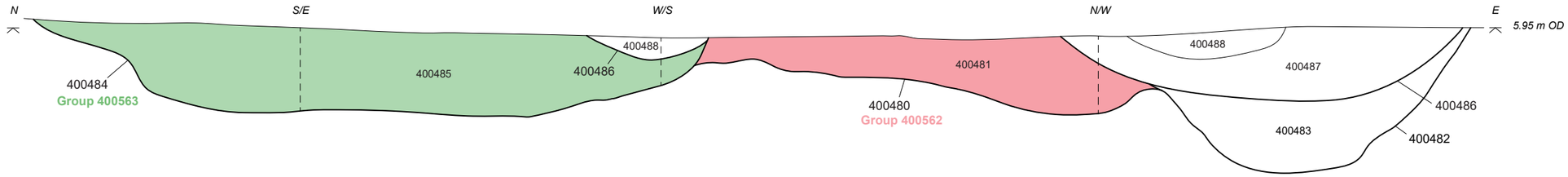
Section 65



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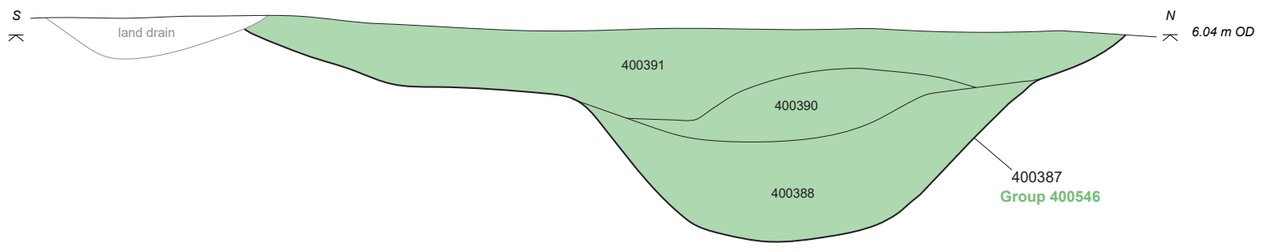
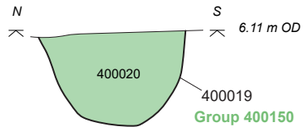


Section 67

Section 68



Date: 19/01/2023	Created by: JD	Revision: 0	Scale: 1:20 at A3

Figure 95: Area 40 sections

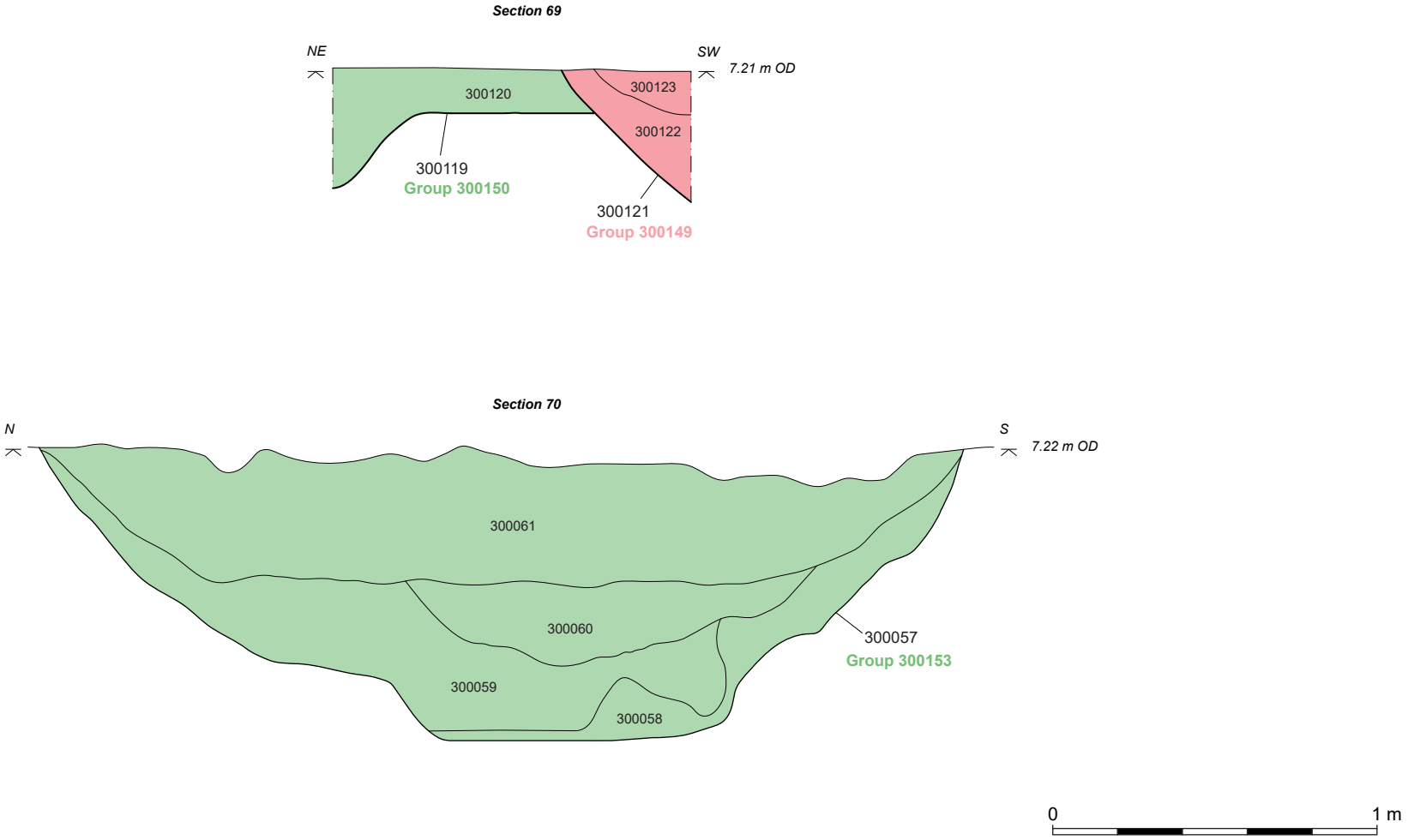


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Figure 96: Area 30 sections

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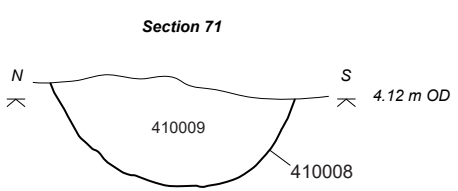

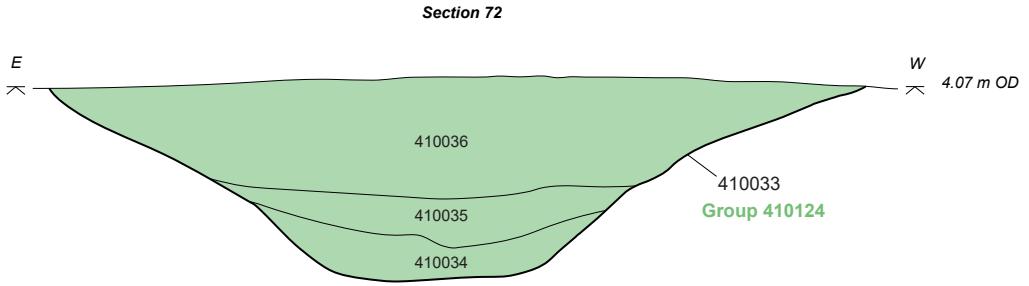

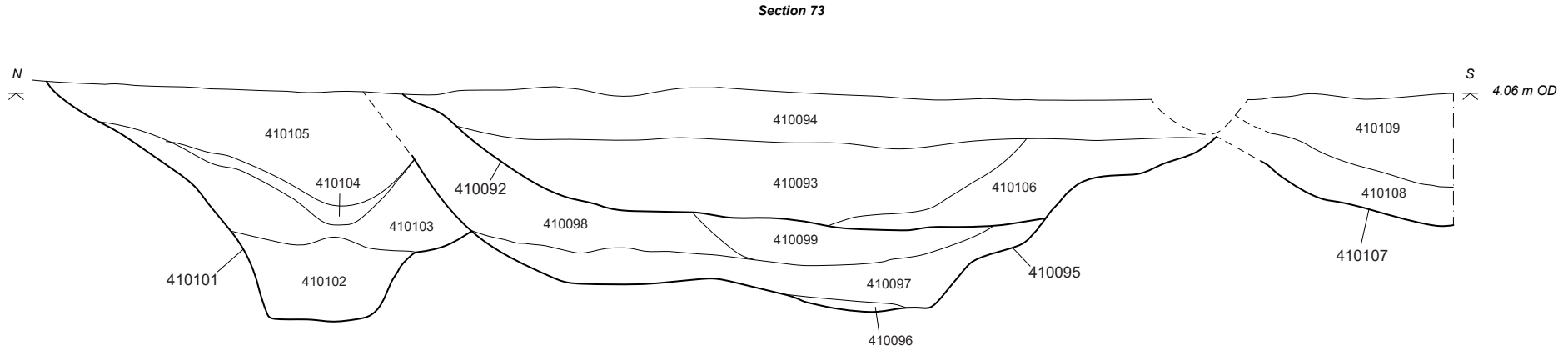

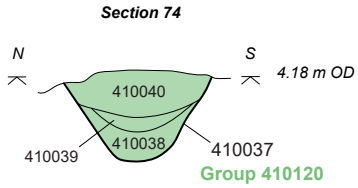

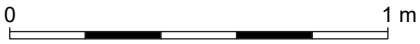

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Figure 97: Area 41 sections

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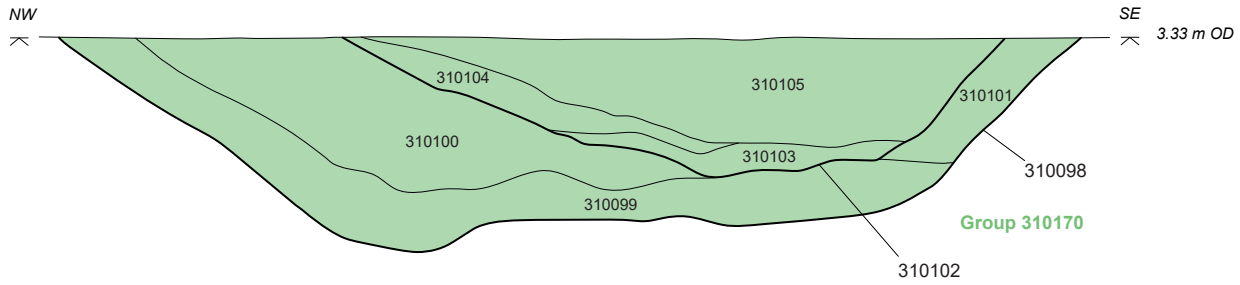
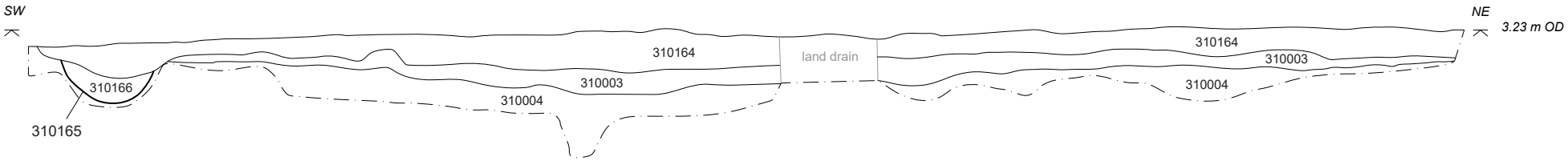
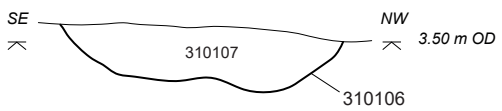
Section 75



Section 76



Section 77



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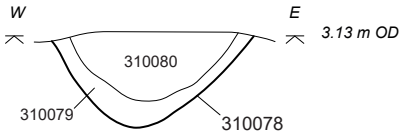

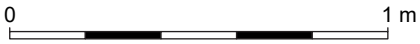

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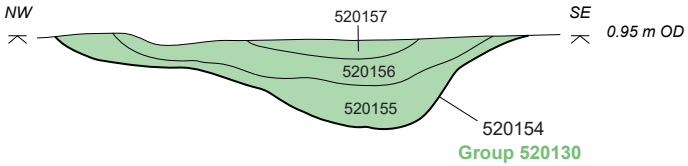
Figure 98: Area 31 sections

Section 79



Section 80

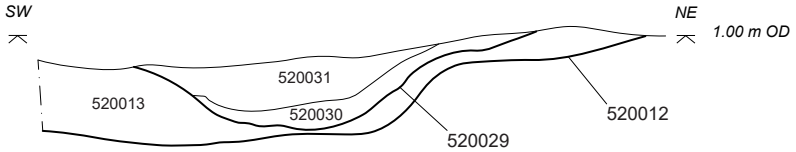


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Figure 99: Area 52 sections

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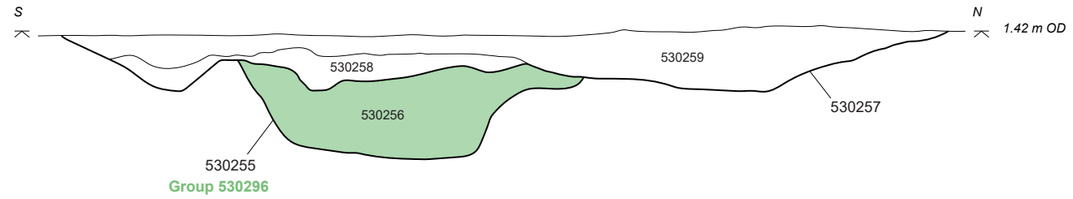
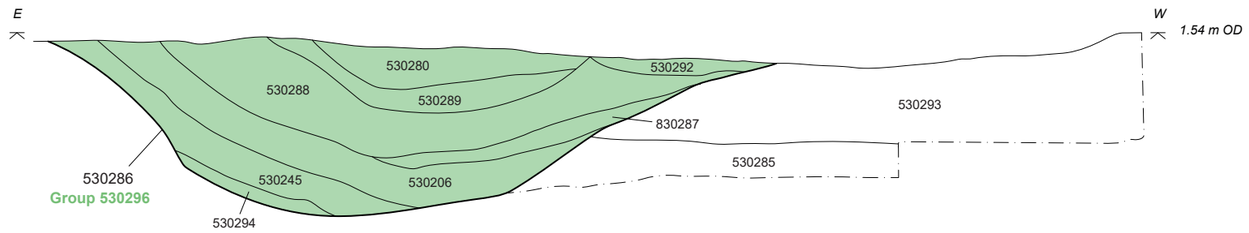
Section 81

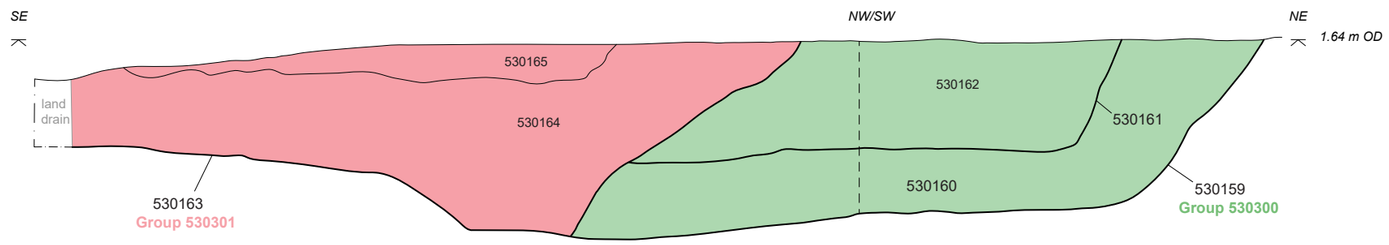


Section 82

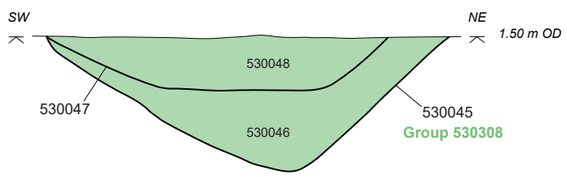


Section 83

Section 84



Section 85



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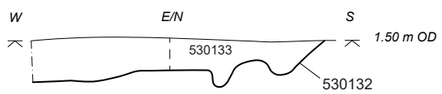

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Figure 100: Area 53 sections

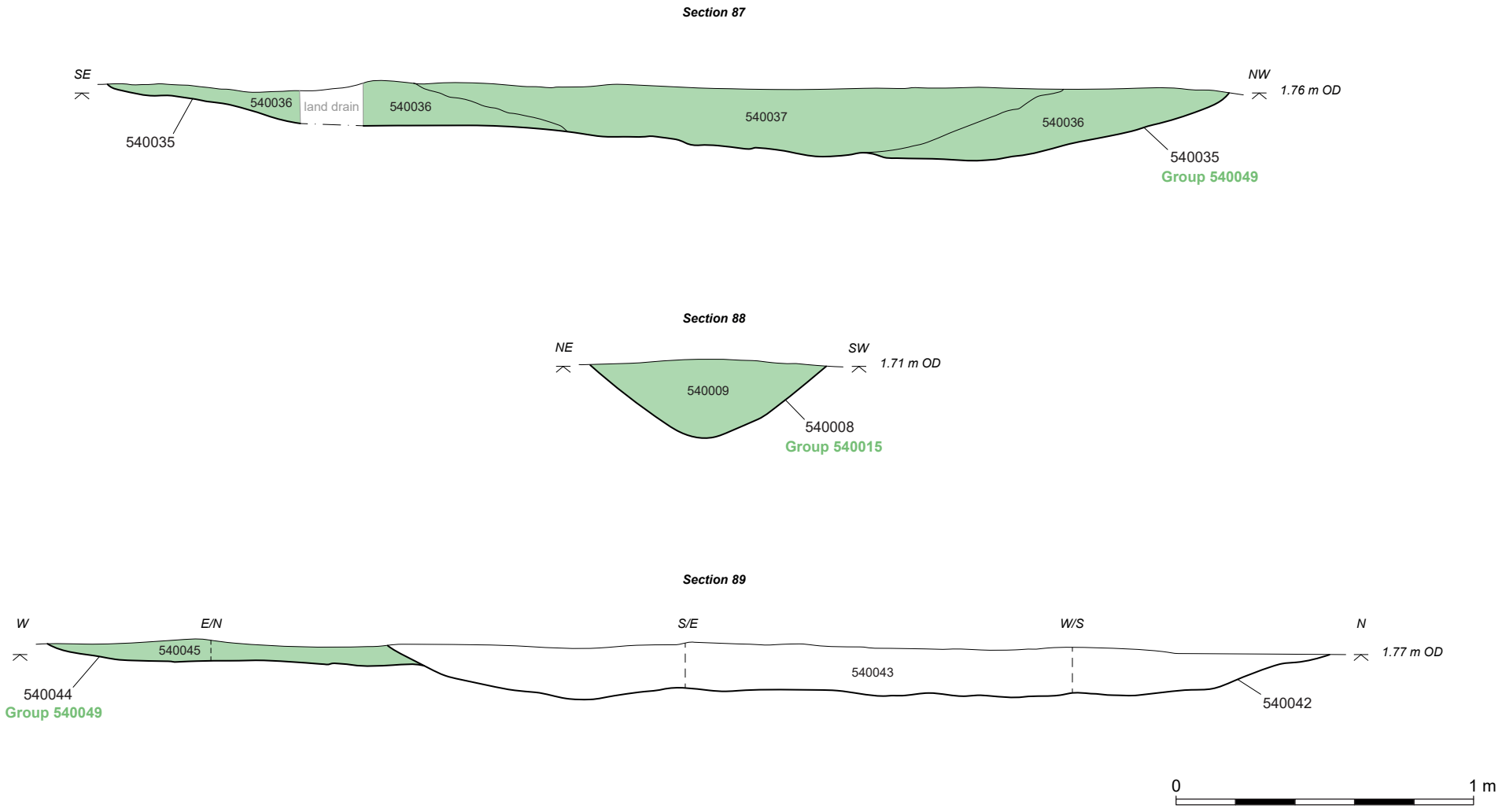

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Figure 101: Area 54 sections

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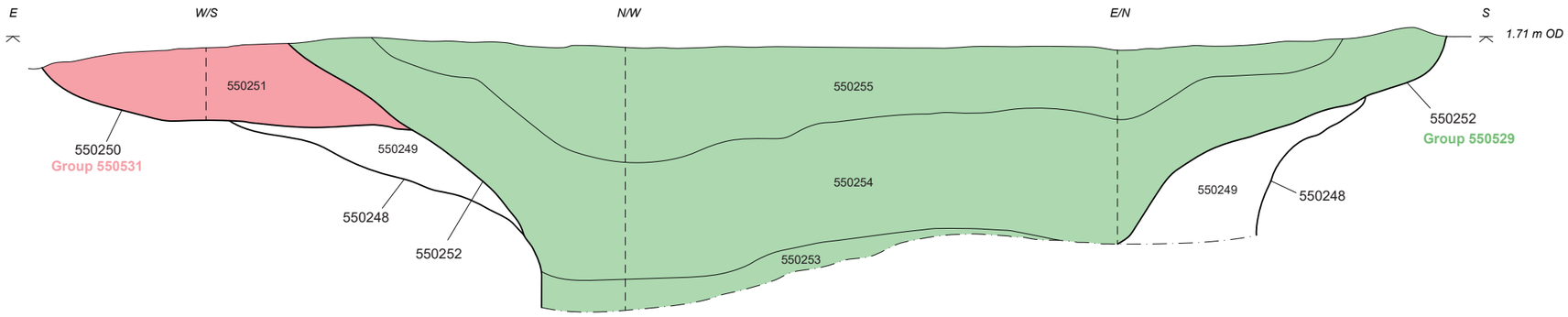
Section 90



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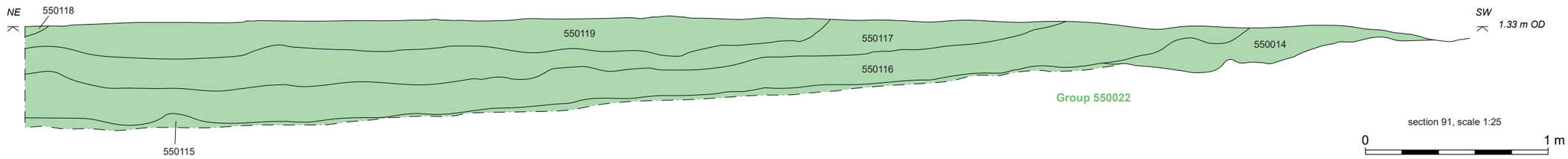

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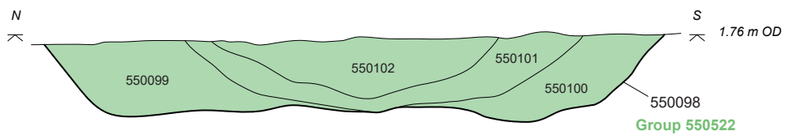

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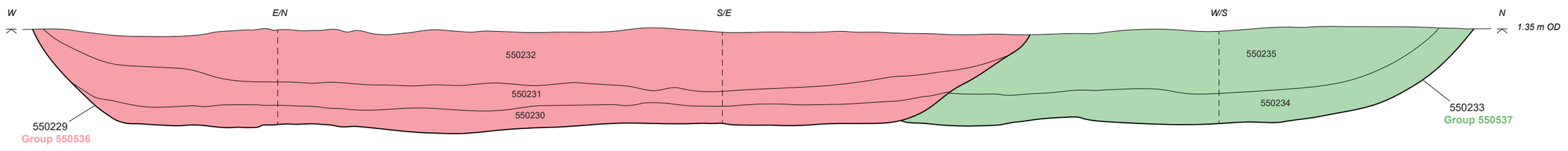

Section 94

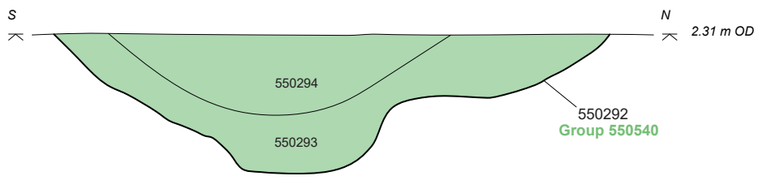

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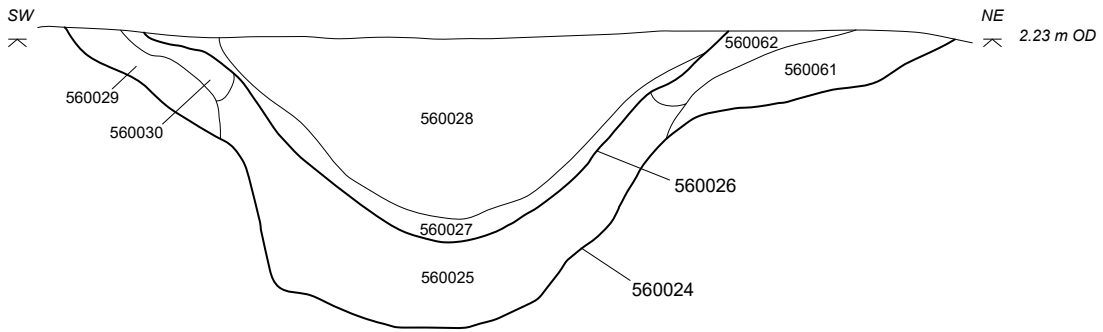
Figure 102: Area 55 sections

Section 95



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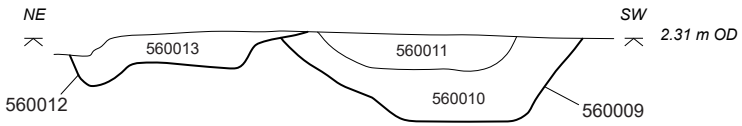
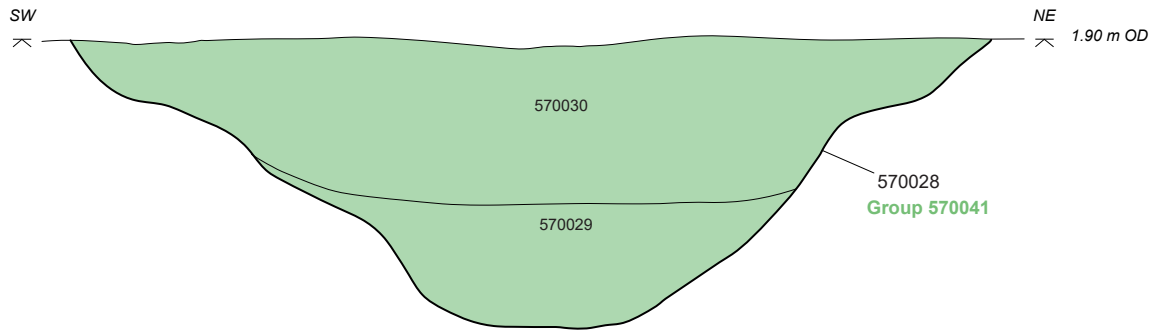


0 1 m

Date: 17/02/2023	Created by: JD/CM	Revision: 0	Scale: 1:20 at A4

Figure 103: Area 56 sections

Section 97



Section 98

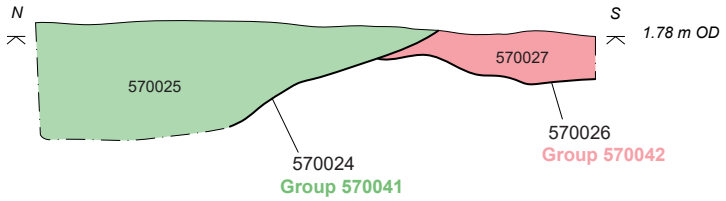


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Figure 104: Area 57 sections

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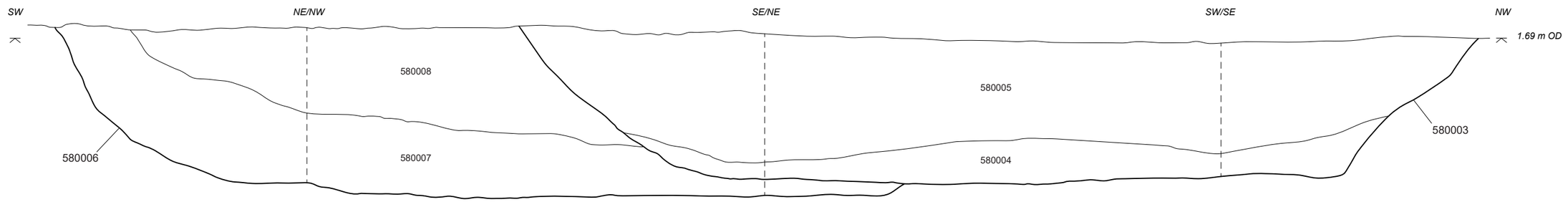
Section 99



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Date: 25/01/2023	Created by: JD	Revision: 0	Scale: 1:25 at A3

Figure 105: Area 58 section

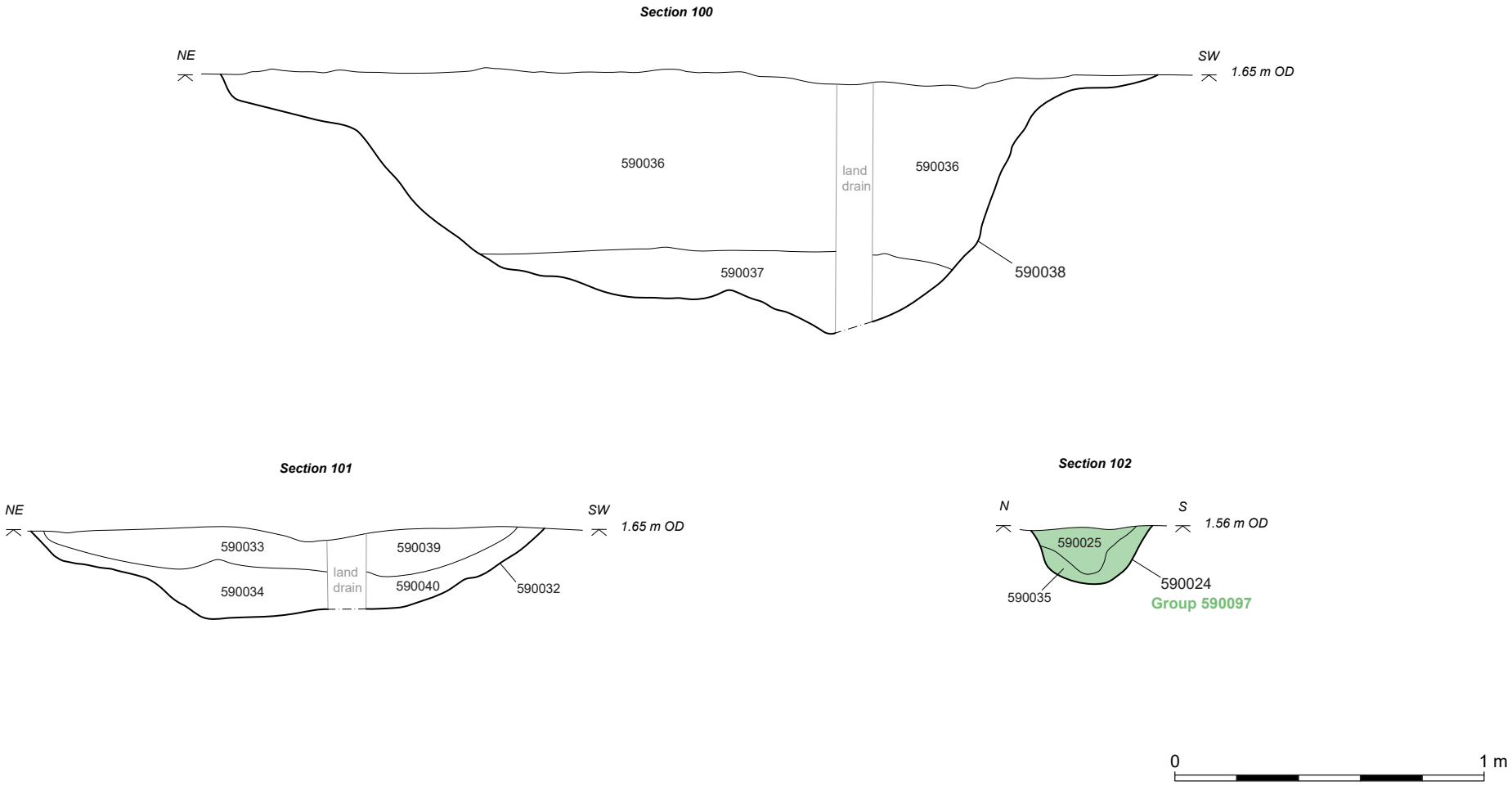

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Figure 106: Area 59 sections

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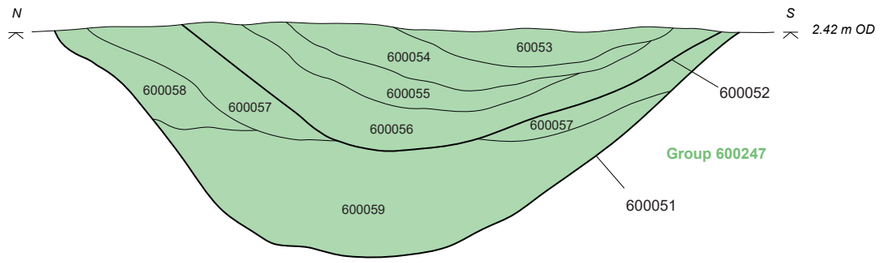
Section 103



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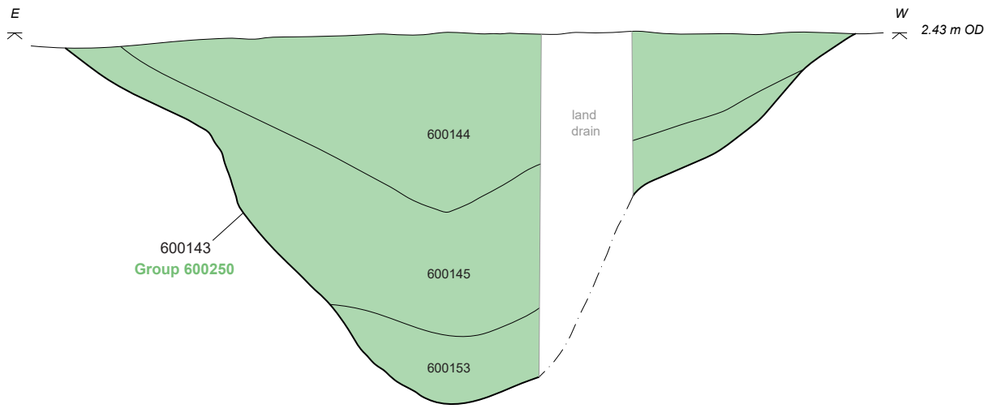

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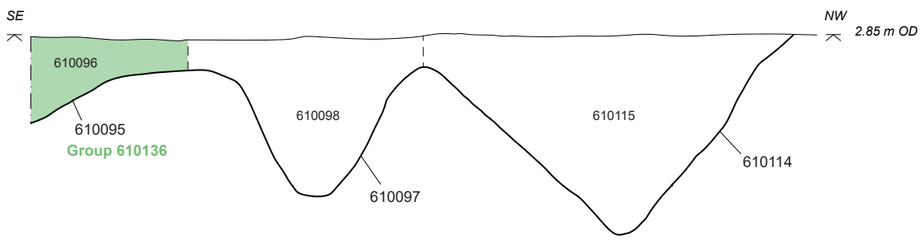

Date: 25/01/2023	Created by: JD	Revision: 0	Scale: 1:25 at A3

Figure 107: Area 60 and 61 sections

Figure 108: Trench 76, view from the east (2 x 1 m scale)

Figure 109: Ditch in trench 703, view from the east (1 m scale)

Figure 110: Trench 61, view from the south-west (2 x 1 m scale)

Figure 111: East facing section of pit in trench 7 (1 m scale)

Figure 112: Furrow in trench 317, view from the south-east (2 x 1 m scale)

Figure 113: South facing section of pit in trench 94 (2 m scale)

Figure 114: Trench 143, view from the north-east (2 x 1 m scale)

Figure 115: Trench 319, view from the north-east (2 x 1 m scale)

Figure 116: Trackway in trench 21, view from the south-west (1 m scale)

Figure 117: Trench 230, view from the north (2 x 1 m scale)

Figure 118: Trench 27, view from the north (2 x 1 m scale)

Figure 119: West facing section of feature in trench 109 (1 m scale)

Figure 120: Trench 235, view from the north-west (2 x 1 m scale)

Figure 121: East facing section of feature with burnt animal bone in trench 116 (0.2 m scale)

Figure 122: Trench 236, view from the north (2 x 1 m scale)

Figure 123: Trench 39, view from the east (2 x 1 m scale)

Figure 124: North facing section of ditch terminus/pit in trench 149 (1 m scale)

Figure 125: Trench 41, view from the north-west (2 x 1 m scale)

Figure 126: Postholes and posthole/pit excavated in trench 327, view from the north-east (0.2 m scale)

Figure 127: Trench 46, view from the south-west (2 x 1 m scale)

Figure 128: South facing section of ditch in trench 137 (1 m scale)

Figure 129: Trench 47, view from the south-east (2 x 1 m scale)

Figure 130: West facing section of ditch in trench 138 (1 m scale)

Figure 131: Trench 151, view from the south-west (2 x 1 m scale)

Figure 132: Area 5, working shot of area strip, view from the south-west

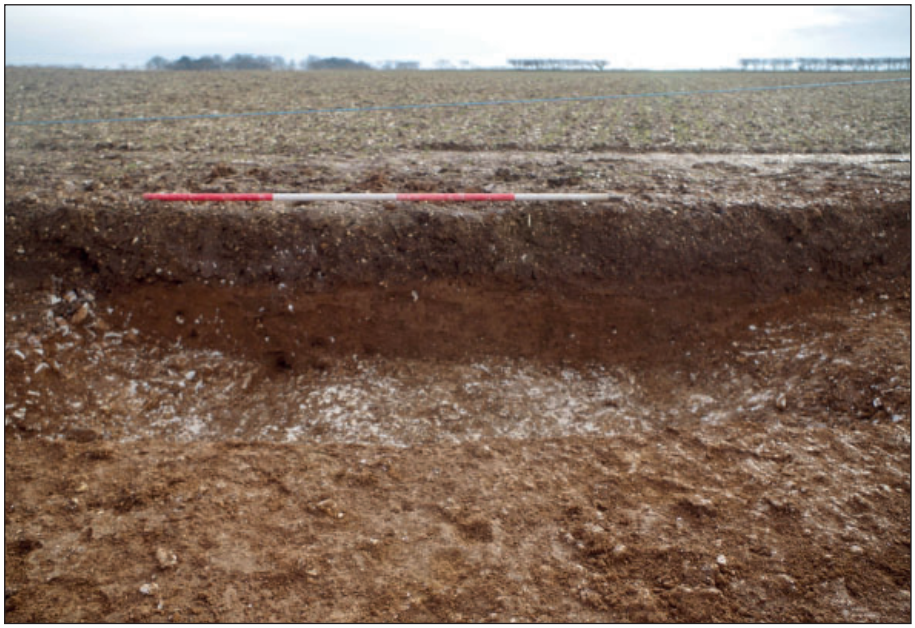

Figure 133: North-west facing section of trackway 500061 and wheel-ruts 500077 and 500078 (2 m scale)

Figure 134: South-west facing section quarry pit 500036 and wheel-ruts 500070 and 500071 (2 m scale)

Figure 135: Area 7, working shot, view from the south-west

Figure 136: West facing section of pit 700024 (1 m scale)

Figure 137: Ditch 700201, view from the east (1 m scale)

Figure 138: Area 35, working shot, view from the south

Figure 139: South facing section of pit 350119 (1 m scale)

Figure 140: North facing section of ditch 800487 (1 m scale)

Figure 141: South-west facing section of pit 800029 (1 m scale)

Figure 142: North facing section of pit crop dryer (1 m scale)

Figure 143: South facing section of ditch 800496, crop dryer 800465 and ditch 800497 (2 m scale)

Figure 144: Area 9, aerial view from the south-east

Figure 145: Trackway 900050, gully 900053 and ring ditch 900066, view from the south-west (1 m scale)

Figure 146: Detail of burial 900021 with object 900002 (0.2 m scale)

Figure 147: Burials 900021 and 900047, view from the south-west (1 m scale)

Figure 148: Copper alloy objects 900005 and 900008 in situ in grave 900062 (0.08 m scale)

Figure 149: Grave 900063, view from the south-east (1 m scale)

Figure 150: Spindle whorl 900031, knife 900039 and buckle 900069 in situ within grave 900079 (0.08 m scale)

Figure 151: Working shot of burial 900139 with bone combs 900083 and 900094 in situ

Figure 152: Burial 900163 with in situ shells 900112 and 900155 and glass 900145 (0.08 m scale)

Figure 153: Grave 900175, view from the south-east (1 m scale)

Figure 154: Grave 900196, view from the south-east (1 m scale)

Figure 155: Grave 900205 and ring ditch 900066, view from the south-east (1 m scale)

Figure 156: South-west facing section of ditch 170154 (1 m scale)

Figure 157: North-west facing section of ditch 170150 (1 m scale)

Figure 158: Area 33, working shot, view from the north-east

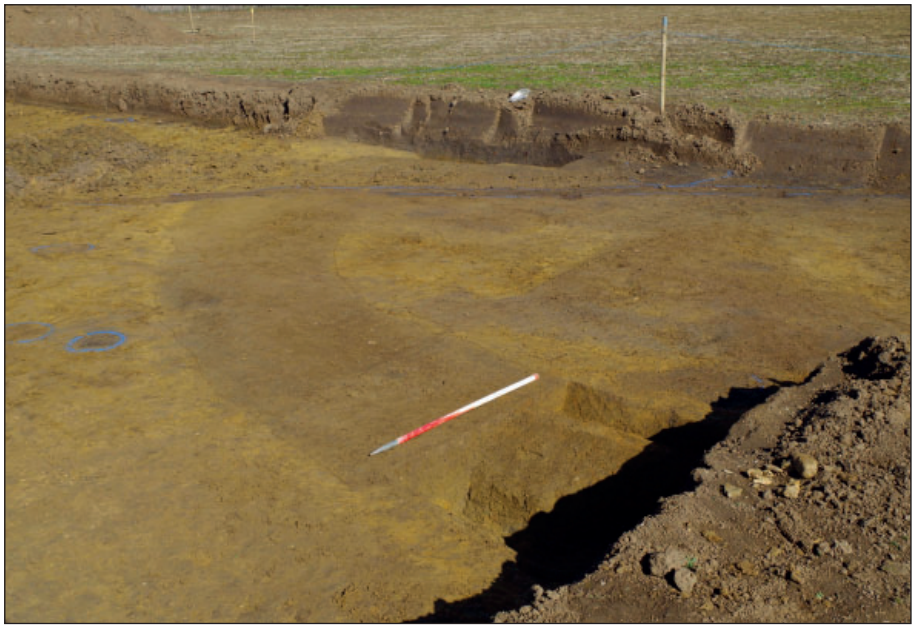

Figure 159: Ditch 180039, view from the south (1 m scale)

Figure 160: Posthole group 180200, view from the south-east (1 m scale)

Figure 161: Area 37, view from the north-east

Figure 162: North-east facing section of pit 190047 (1 m scale)

Figure 163: Land drain 210028, ditch 210017 and ditch 210052, view from the north-east (2 m scale)

Figure 164: Area 38, view from the north-east

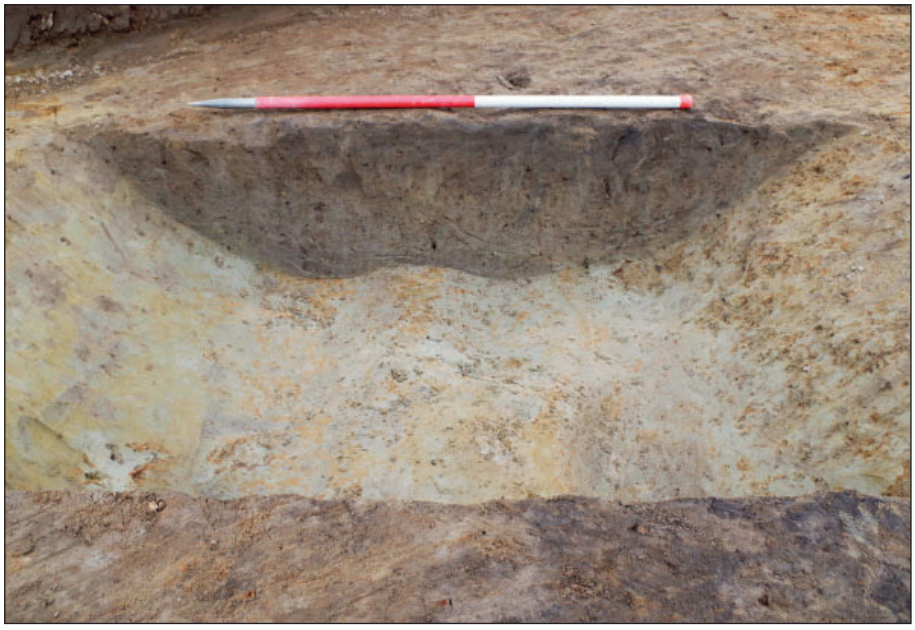

Figure 165: South-east facing section of ditch 380256 (1 m scale)

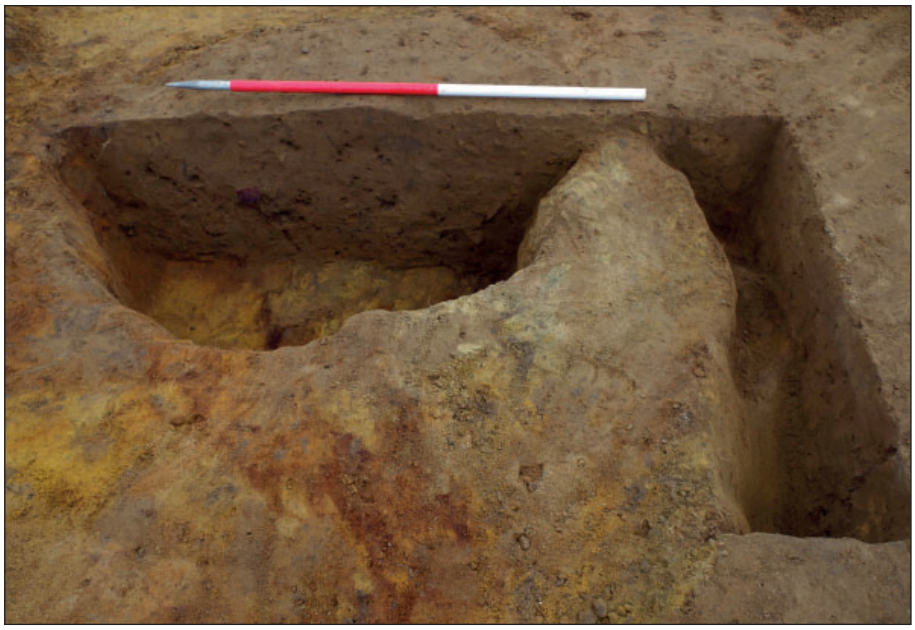

Figure 166: North facing section of pit 220077 and ring gully 220117 (1 m scale)

Figure 167: East facing section of pit 220025 (0.3 m scale)

Figure 168: South-west facing section of ditch 120018/120019 (1 m scale)

Figure 169: South-west facing section of ditch 120088 (2 m scale)

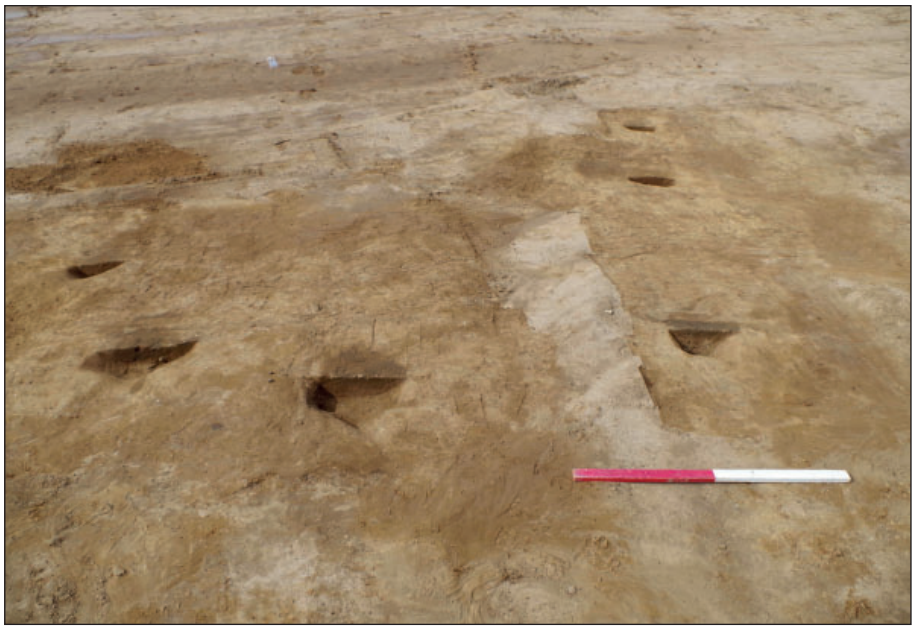

Figure 170: Posthole group 250029, view from the south (1 m scale)

Figure 171: Area 39, view from the south

Figure 172: North-west facing section of pit 340087 (0.3 m scale)

Figure 173: Ditch 280133, view from the north

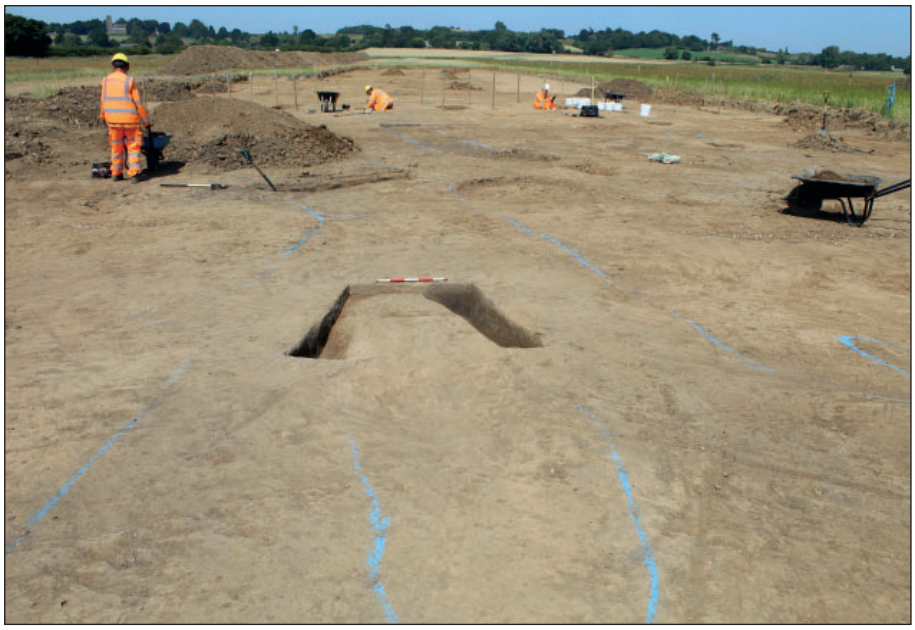

Figure 174: Ditch 340170 and spur ditch 340168, view from the south (0.5 m scale)

Figure 175: East facing section of ditch 290062 and gully 290058 (1 m scale)

Figure 176: South-west facing section of gully 290063 (0.2 m scale)

Figure 177: Ring gully 400150, view from the east

Figure 178: Pot in situ in gully 400554 (0.1 m scale)

Figure 179: Ditch 300152, view from the north-east (1 m scale)

Figure 180: South-east facing section of ditch 300153 (2 m scale)

Figure 181: Working shot of gullies 410120 and 410121, view from the south-west

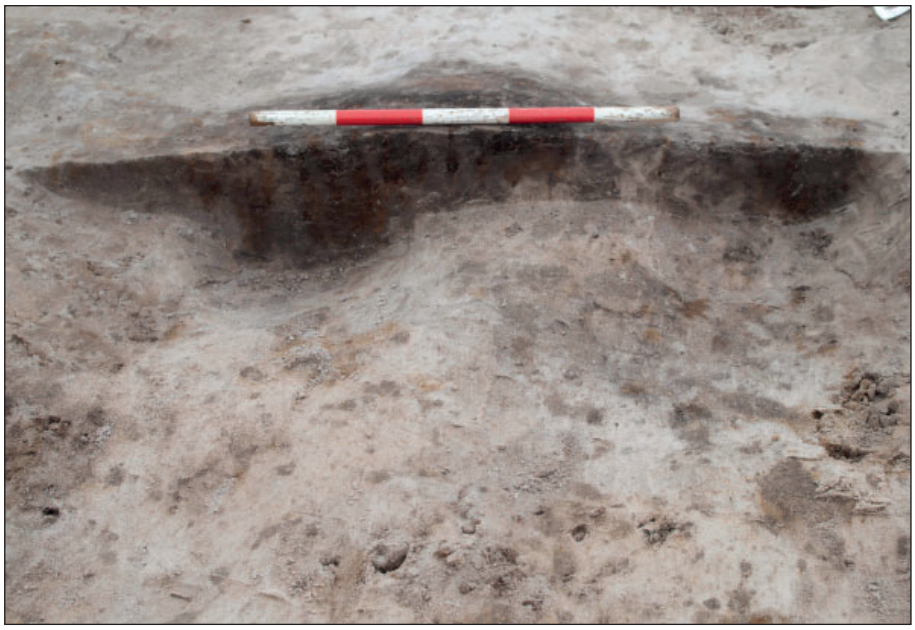

Figure 182: North-east facing section of pits 410116 and 410118 (0.5 m scale)

Figure 183: Ditch 310171, view from the north-east

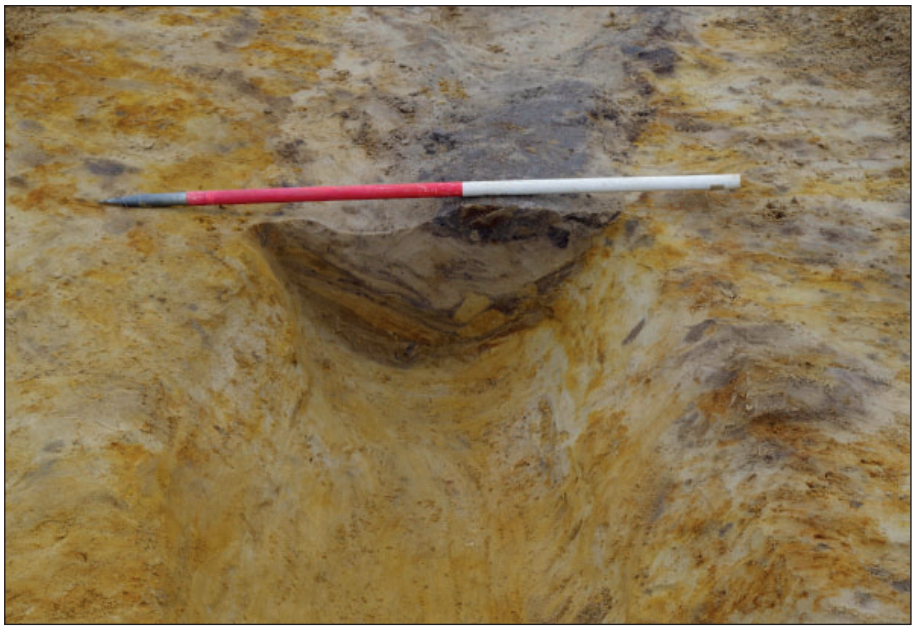

Figure 184: South facing section of gully 310081/310125 (1 m scale)

Figure 185: Ditch 505005, view from the west (1 m scale)

Figure 186: Area 51, view from the north-east

Figure 187: South-west facing section of pit 520027 (1 m scale)

Figure 188: Pre-excavation shot of ditch 520130, view from the south-west (2 x 2 m scales)

Figure 189: Animal bone group 520115, view from the north (1 m scale)

Figure 190: Ditch 530069/530090, view from the north-east (1 m scale)

Figure 191: Pond 530169, view from the south-west (1 m scale)

Figure 192: Pit 530202, view from the south (1 m scale)

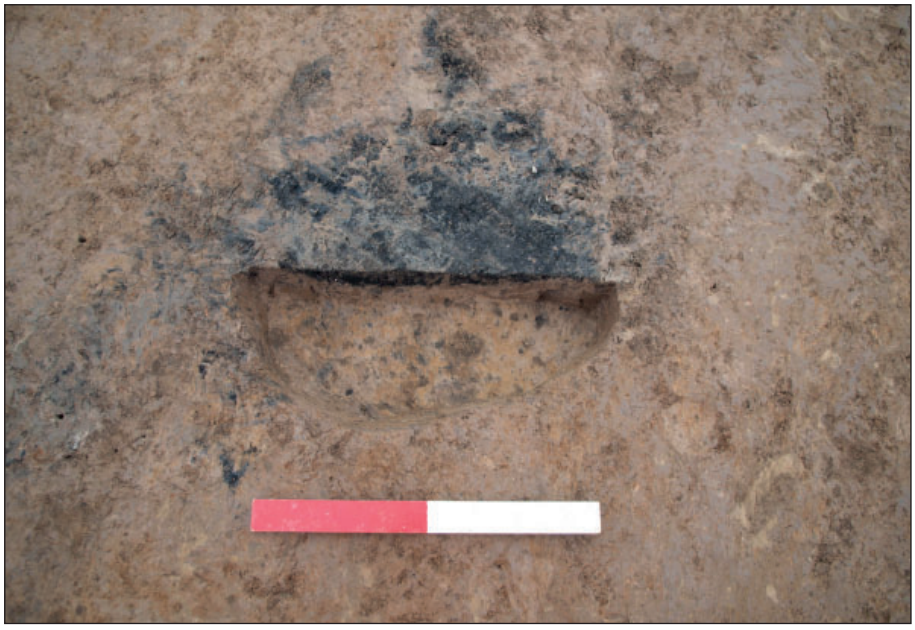

Figure 193: Cremation grave 540003 (0.2 m scale)

Figure 194: North-east facing section of ditch 540049 (1 m scale)

Figure 195: Area 55, view from the north-west

Figure 196: Ditch 550534, view from the south

Figure 197: Pond 550022, view from the south-west (2 x 2 m scales)

Figure 198: North facing section of ditch 550508 (0.5 m scale)

Figure 199: Composite image of humerus from Area 56 showing filleting marks and (top right) chop mark to medial epicondyle

Figure 200: Calf in pit 560058, view from the north-east (1 m scale)

Figure 201: Ditches 560044/560051, view from the south-east (2 m scale)

Figure 202: North-west facing section of ditch 570009 (1 m scale)

Figure 203: Ditches 580003 and 580006, view from the north-west

Figure 204: Ditch 590050/590056, view from the east (1 m scale)

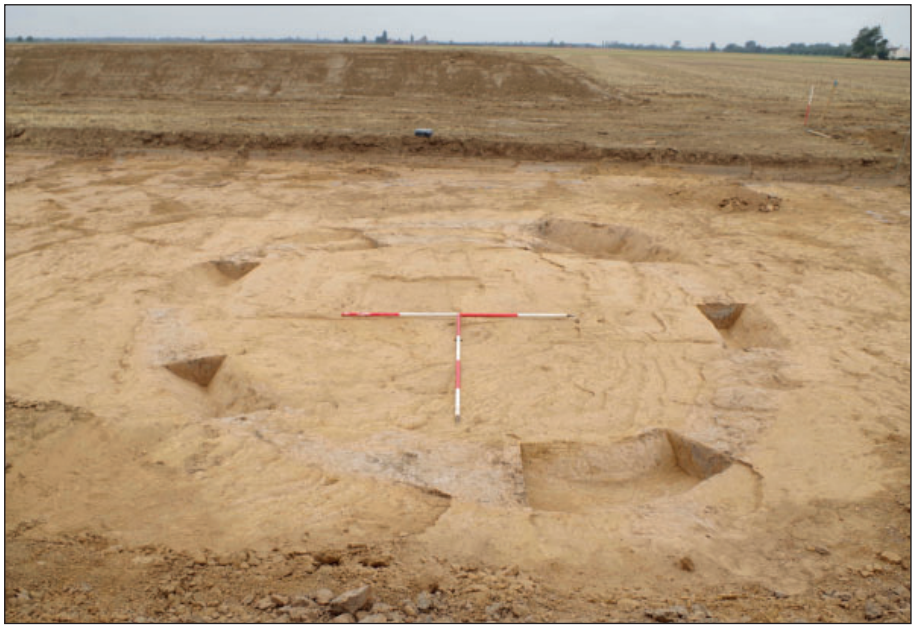

Figure 205: Roundhouse 590097, view from the south-east (2 x 2 m scale)

Figure 206: Area 61, view from the south-west, Bicker Fen substation under construction in background

Figure 207: North-east facing section of ditches 610136, 610137 and 610138 (2 m scale)

Figure 208: Relationship slot between ditches 610101 and 610136, view from the south-west (1 m scale)

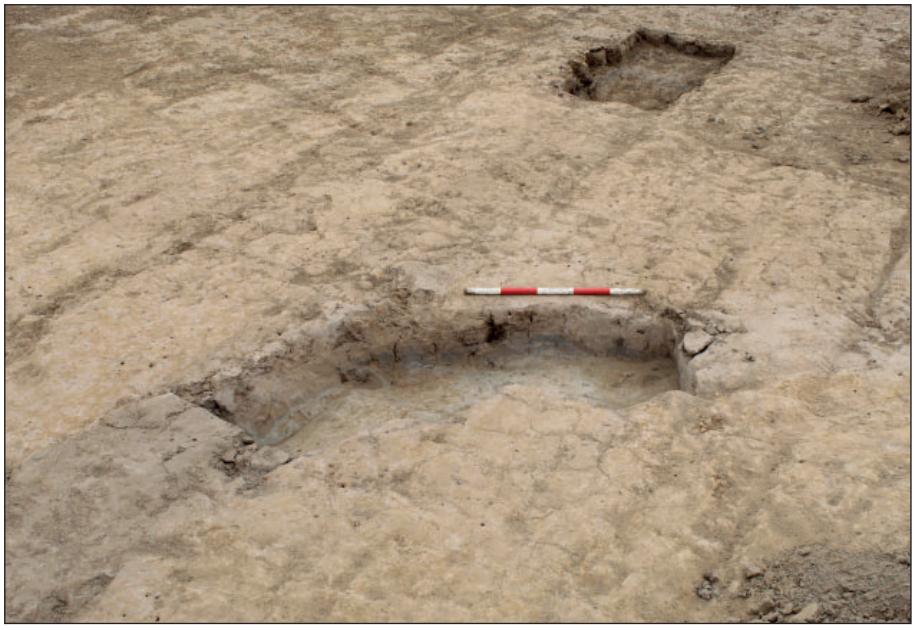

Figure 209: Gully 600246, view from the south (0.5 m scale)

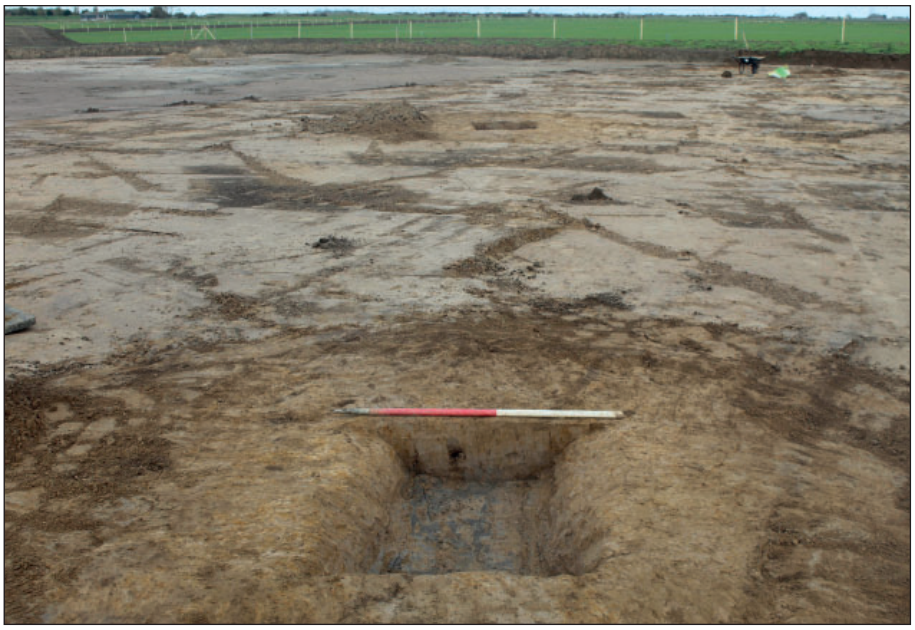

Figure 210: Gully 610061, view from the south-east (1 m scale)

Figure 211: Relationship slot between ditches 600243 and 600244, view from the south (1 m scale)

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