A prehistoric settlement and fieldsystem at the Perkins Engines site, Fengate, Peterborough



Archaeological Evaluation Report



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A prehistoric settlement and fieldsystem at the Perkins Engines site, Fengate, Peterborough

Archaeological Evaluation

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Summary

Between the 9th and 19th June 2014 Oxford Archaeology East conducted an archaeological evaluation to the east of the Perkins Engines site, Fengate, Peterborough (TL 21454 99771), in advance of the proposed sale of the land for development. A total of 36 trenches, measuring 1072m, were excavated over an area of 3ha spread between two plots. Eight trenches were located in the southern plot whilst 28 were excavated in the larger northern plot. Part of the trench layout was targeted over anomalies identified during a geophysical survey of the site whilst others were located at random.

A large amount of modern ground build-up and truncation in the southern area meant that natural and archaeological deposits were sealed by up to 1.90m of overburden. Archaeological deposits were located at the south of the southern plot and across the whole of the northern plot with the density increasing to the south and east. Ditches, postholes and pits were encountered across the whole site. The postholes were located in Trench 36 in the southern area, and in Trench 7, Trench 8 and Trench 13 in the northern area. These groups of postholes and associated pits may represent the locations of post-built timber-framed structures which tend to date to the Bronze Age or Early Iron Age. The ditches which were uncovered, some of which were also identified by the geophysical survey, were broadly aligned north-east to south-west, north-north-west to south-south-east or perpendicular to this, and may have been part of an enclosure or fieldsystem. Two of the features uncovered in the northern field, associated with these ditches, appear to be waterholes which, along with a small amount of cattle bone recovered, suggest a pastoral regime in use on this site.

Artefacts recovered from the site included a small assemblage of struck flints, possibly dating to the Neolithic period, a few fragments of flint-tempered pottery and burnt clay from the south-east of the northern field and a fragment of an Alpine jadeitite polished axe dating from the Late Mesolithic or Early Neolithic period. Axes such as this are rare in British archaeological contexts making this a nationally significant find. Given the likely dates for all of the artefacts recovered from the site it is most likely that they represent redeposited material in later features.

An environmental bulk sample from a pit or waterhole in the centre of the northern area recovered over 1.5 litres of processed and charred emmer wheat. If this deposit covers the whole of the base of the pit it could represent the entire harvest for a small pastoral community. Together, these fieldsystems, timber-framed structures and evidence of an agrarian and pastoral economy, are indicative of the site being used from the Neolithic period and becoming the location of a prehistoric settlement and farmstead between the Middle Bronze Age and Early Iron Age.

1 Introduction

1.1 Location and scope of work

- 1.1.1 An archaeological evaluation was conducted at the Perkins Engines Company site, Fengate, Peterborough (Figure 1; TL21454 99771)
- 1.1.2 This archaeological evaluation was undertaken in accordance with a Brief issued by Rebecca Casa-Hatton of Peterborough City Council (PCC), supplemented by a Specification prepared by Wessex Archaeology (WA 2013).
- 1.1.3 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *National Planning Policy Framework* (Department for Communities and Local Government March 2012). The results will enable decisions to be made by PCC, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.
- 1.1.4 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and topography

- 1.2.1 The majority of the site lies on Mudstone geology whilst Sandstone and Siltstone lie to the north-east. Terrace gravel deposits are also present in this area (B.G.S. 1984). The geology forms a ridge which slopes gradually from 5.5m O.D. down to the east and south-east towards Flag Fen. The ground was generally higher in the southern plot where made-ground was present over the entire area. The remains of plough soil horizons were observed in the northern field and these survived at a height of 3.80m OD in the west and 3.50m OD in the east.
- 1.2.2 The northern plot was bounded to the east by Newark Road, commercial\industrial properties to the south and north and an access road to the Perkins Engines site to the west. The southern plot was bounded by the access road to the west, Vicarage Farm Road to the south and commercial\industrial properties to the north.

1.3 Archaeological and historical background

1.3.1 A Heritage Desk-Based Assessment was conducted for this site prior to the commencement of the archaeological works (Clarke 2012). The background presented below is a summary of this document, based on a search of the Peterborough Historic Environment Record (PHER), which took into account all sources and archaeological resources available providing information on a 1km area around the proposed development area.

Previous Excavations (Clarke 2012, fig.6)

1.3.2 A number of archaeological studies are known to have been undertaken within close proximity of the Site.

The Broadlands

- 1.3.3 Between 1998 and 2006 Hertfordshire Archaeological Trust and Archaeological Solutions were commissioned to undertake archaeological investigations on the land south of The Broadlands highway, immediately north of the proposed development Site.
- 1.3.4 The pre-excavation investigation (Vaughn 1998) consisted of a 25 trench evaluation that observed prehistoric pits and post holes in association with Bronze Age field ditches. Finds of pottery and struck flint were made. Excavations were subsequently undertaken in four phases (2006b). Phase 1 (Vaughn & Last 1999), in the northern part of the site, revealed an early Romano-British square enclosure ditch with a potential structure of post holes and an oven. A large number of pits and tree boles were also observed.
- 1.3.5 Phases 2 (Crank and Ralph 2001) and 3 (Hounsell 2002) targeted areas in the western and northern parts of the site. During these phases, further pits and post holes were observed, as well as a long, straight early Romano-British boundary/drainage ditch orientated from south-east to north-west. In the south-western part of the site, four linear features ostensibly dating to the Late Bronze Age were observed with an east-west orientation. Phase 4 of the excavation covered a large area within the southern part of the site. A continuation of the previously recorded Romano-British ditch was observed and it was shown that the Bronze Age ditches were part of an enclosure in the south-western part of the site. A Late Bronze Age/Early Iron Age crouched burial was discovered at the southern edge of the site. Four Middle Bronze Age boundary ditches observed in the middle and eastern parts of the site, were orientated approximately north to south and could potentially continue in to the proposed development Site.

Site 'T', Newark Road

1.3.6 In 1999, Cambridgeshire County Council Archaeology Field Unit was commissioned to conduct a two trench evaluation (Casa-Hatton 1999) in advance of development on the site. Sequences of levelling and modern disturbance were observed but there was no evidence for early land use.

Global Door (UK) Ltd

1.3.7 In 2001, Soke Archaeological Services were commissioned to undertake a series of test pits and an excavation (New 2001) on land at Global Door (UK) Ltd on Newark Road, approximately 70m south-east of the Site. Deposits above the natural gravel geology were observed to a maximum depth of 1.17m, including a layer of buried soil at the base. The remains of tree boles were observed cutting into the natural, one of which contained sherds of Neolithic struck flint.

Barnack UK Ltd

1.3.8 In 2001, Northamptonshire Archaeology was commissioned to undertake an archaeological evaluation (Morris & Mudd 2001) on land at Barnack UK Ltd on Newark Road, 50m to the south-east of the proposed development Site. Observed features included two roughly linear features, a pit and multiple tree boles. The pit contained a single sherd of pottery (possibly Neolithic Peterborough Ware) and Neolithic flints were excavated from a tree bole. Deposits above the natural gravel geology were observed to 0.82m, including a layer of peat from the Fen edge.

Archaeological and Historical Context The Prehistoric Landscape

1.3.9 The use and occupation of the Site in the early prehistoric period would have been largely defined by its topography and position in the landscape. The Site lies on a gravel escarpment, gently sloping from the north-west and Newark Hill to the southeast and Flag Fen. Although only a gentle hill, by Fenland standards it is relatively high and small prominences can acquire a special significance in such flat landscapes (Pryor 2005, 16). The Site is approximately 3m above the present water table, which was recorded at a maximum of 0.71m in January 2008. The Fens were formed during the Post-Glacial period as a well watered plain bounded by chalk to the north, south and east, and by limestone and clays to the west (Coles & Hall 1998, 1). The Fens have gradually been subsiding at a rate of approximately 1mm per year since 4500BC (Hall & Coles 1994, 38). Prehistoric rivers flowed into the plain while occasional inundations of the low ground from the North Sea created brackish wetlands (Coles & Hall 1998, 1). Pollen evidence shows that there was widespread woodland, dominated in the first instance by betula (birch) before gradually being replaced in dominance by pinus (pine). In about 6,000BC, ulmus (elm), quercus (oak) and tilia (lime) began to dominate on the upland edges, such as at the Site, and became more common within the watered areas of the landscape (Hall & Coles 1994, 39).

Palaeolithic and Mesolithic Activity (Clarke 2012, fig.1)

- 1.3.10 Palaeolithic activity is represented within the Study Area by a single worked flint hand axe (**P07862**) 700m to the south-west of the Site, on marginally higher ground. The recovery of individual flint tools may reflect *in situ* processing of flint near prehistoric rivers, or evidence of human activity such as hunting, transport, river crossing, transient settlement, industrial sites or votive offerings. Evidence for these activities is occasionally found in association with flood plain environments, such as the low lying lands around the Site.
- 1.3.11 Mesolithic activity within the Study Area is represented by a single worked flint within a pit with animal bones adjacent to the Fen 870m to the south of the Site (**P51414**). In the Late Mesolithic period, approximately 4,500BC, rising sea levels increased the height of the water table in the Fens and turned the previously well watered plain into a wetland landscape (Hall & Coles 1994, 38). This would have begun a slowly increasing trend towards a landscape of large tracts of brackish water with gravel and clay uplands turned into shallow islands. The Site would have been on an area of raised gravel at the western edge of the Fens.

Neolithic Activity (Clarke 2012, fig.1)

- 1.3.12 Evidence for the Neolithic within 1km of the site consists predominantly of residual lithic finds (P51246, P50545, P51415, P51418, P51216 and P50951). In light of the lack of evidence for structures, Francis Pryor (2005, 63) has suggested that this may represent evidence for temporary settlements and a more mobile population than in non-wetland areas.
- 1.3.13 The Neolithic is associated with the adoption of pottery in Britain, which is evidenced by finds of pottery of this date at all of the settlement and farming sites mentioned above. Finds of Neolithic worked flints have been found 60m to the south-east (**P51151**) and 825m to the south-west (**P11715**) of the Site.

Bronze Age Activity (Clarke 2012, fig.2)

- 1.3.14 The evidence for Bronze Age activity around Flag Fen showed a remarkable difference to that of the Neolithic period, perhaps most strongly demonstrated by the farming related features in the landscape. In the Bronze Age ditches and drove ways, such as at 150m east (P51682) and 425m south (P51211) of the Site, led towards and into the Fen. It has been ascertained with phosphate analysis that the drove ways were used for the movement of animals, probably cattle or sheep, to graze on common land on the Fens, despite a further increase in the level of the water table (Waller 1994). It is also evident that there was an increase in farming activity in the Bronze Age, with sites to the east (P51307, P51753) and to the south (P51183, P51246, P51422, P51423, P51567, P51682, P51684, P51746, P51747, P51784).
- 1.3.15 The remains of a structure (**P51682**) have been located 150m to the east of the Site and three roundhouses have been located 150m east (**P51684**), and 315m (**P51263**) and 425m (**P51211**) south of the Site. Further evidence for settlement is located 610m south of the Site (including a salt production site) (**P51435**) and 785m south-west (**P02818**).
- 1.3.16 The third major characteristic of the Bronze Age is the use of the edges of the developing Fen for burial. In general, around the edges of Flag Fen barrows and ring ditches are thought to be spaced approximately every 200m (Pryor 2005, 91). Cremations have been recorded less than 100m north (P51422) and 680m south-west (P02823, P02826) of the Site. There are two inhumations (P03002), including a crouched burial (P51423) recorded within 100m of the north of the Site, and three barrows (P03002, P03111, P50420) are located in an area within 425m of the north-eastern corner of the Site. Two of the barrows included metal grave goods including daggers, an axe and a spear. Two other likely religious monuments are located in the south of the Study Area, with a ring ditch (P51806) and a 'hengiform' monument (P51209) present.

Iron Age Activity (Clarke 2012, fig.3)

- 1.3.17 The Iron Age across the region is characterised by a series of major changes in society, technology and economy. In the latter part of the Iron Age, the Site was within the territory of the *Corieltauvi* tribe, which covered the modern counties of Lincolnshire, Nottinghamshire, Leicestershire, Northamptonshire, Warwickshire and parts of surrounding counties. The capital of the *Corieltauvi*, at least during the Romano-British period, was at *Ratae Corieltauvorum* (Leicester), 62km to the west of the Site. The Site was on the very edge of *Corieltauvi* territory, with the territory of the *Iceni* to the east beyond the Fens.
- 1.3.18 Iron Age activity within the Study Area is far less pronounced than the previous Bronze Age activity. However, despite the paucity of evidence, it is apparent that there was a large degree of continuity from the Bronze to Iron Age in the region. This included the continued form of funerary practices within close proximity of the Fen edge and the continued use of the drove ways for the movement of livestock into the Fens (Pryor 2005, 160). There is evidence for continued settlement activity at Royce Road 475m south-west of the Site (P50545) and 710m to the south of the Site (P51807) in the form of roundhouses. There is also evidence for Iron Age settlement and agriculture near Newark Hill Primary School 950m to the north-west of the Site (P10595a) in the form of fine metal work, ditches, post holes and pottery. This is the earliest densely concentrated evidence to have been found on ground higher than the Site and away

from the Fen edge. Iron Age pits and post holes were found at the Broadlands excavations immediately to the north of the Site. There are a significant number of Iron Age findspots and ditches found in the southern part of the Study Area, suggesting farming.

Romano-British Activity (Clarke 2012, fig.3)

- 1.3.19 Following the Roman invasion of AD43, the Site lay 10km to the east of the town of *Durobrivae*, which was founded alongside the route of the new Ermine Street Roman road. This road ran from *Londinium* (London) to *Lindum Colonia* (Lincoln) and *Eboracum* (York), and was originally constructed to facilitate the fast movement of soldiers from the south of Britain to the north. A fort is known to have been located at Longthorpe, 6km to the west of the Site. This fort was founded between AD44 and 62. The Peterborough area was at the heart of the Nene Valley Ware ceramic industry, examples of which can be found at Romano-British sites from Cornwall to the Antonine Wall in Scotland.
- 1.3.20 The population and society of the area is unlikely to have altered rapidly from the Iron Age to the Romano-British period. Indeed, land use within the Study Area appears to have been largely consistent across the two periods. Areas of Romano-British settlement correlate exactly with those from the Iron Age to the south-west (**P51351**) and north-west (**P10595**) of the Site.
- 1.3.21 However, these sites tend to exhibit enclosed rectangular buildings built with tile rather than roundhouses. Other domestic finds such as loom weights (P10595) and an oven (P51748) have also been found at these sites.
- 1.3.22 It has been suggested that the Fens served as an Imperial estate during the Roman occupation (Drummond & Nelson 1994, 53). Evidence for agricultural activities within the Study Area in the Romano-British period is extensive, although they are concentrated within 700m of the Fen and within the Fen itself. Despite a continued increase in the water table, Romano-British engineering enabled the drainage of the hitherto waterlogged areas at the edges of the Fens. This is dominated in character by significant ditches and enclosures (P02819d, P08377, P08437, P51704, P51407, P51760). The most important example of this within the Study Area is Car Dyke, 400m to the west of the Site. Car Dyke also served as a canal in the Romano-British period and still exists in the modern age. There have been significant quantities of Romano-British evidence for transport systems discovered within the Study Area, not only the Car Dyke canal but also a Roman road (P51750, P51785, P51796) in the southern limits of the Study Area and a drove way (P51810) 870m to the south.
- 1.3.23 The Romano-British period shows the earliest organised exploitation and reclamation of the wetlands that form the Fens. A significantly larger population would have existed in the local area than before or after, until the Modern era.

Medieval Activity (Clarke 2012, fig.4)

1.3.24 Due to the rising water level in the Fens, from the 5th century onwards the land became marginalised for exploitation by the local population, the land considered as common land for grazing, much as in the prehistoric periods. This marginal use encouraged early medieval hermits to establish houses at the edges of and within the Fens (Coles and Hall 1998, 3), including the Abbey (later the Cathedral) at *Medehamstede* (Peterborough).

- 1.3.25 The Site was located at the eastern border of the Mercian kingdom throughout the early medieval period. To the north of the Site was the Mercian sub-kingdom of Lindsey and to the east was the Kingdom of East Anglia. The area would have become part of the Danelaw the area controlled militarily and administratively by the Danes from 876 onwards and throughout the 10th century. Recorded early medieval archaeology within the Study Area is, however, rare. They consist of a brooch and pottery findspot (P10595b) at an Iron Age and Romano-British site to the north-west of the Site, suggesting some continuity.
- 1.3.26 The Study Area contains a little more activity for the later Medieval period, with ridge-and-furrow field systems found to the north of the Site (**P02968**, **P03022**, **P52141**) and 750m to the south-west of the Site (**P51500**). On ground to the north-west of the Site, towards Peterborough and away from the Fen, was the site of St Mary Magdalen Chapel (**P03033**) in Newark, which was a hamlet throughout the medieval period.
- 1.3.27 It is possible that the Site was within the estate of Oxney, the manor approximately a kilometre to the north-east of the Site. This estate was originally purchased for Thorney Abbey in 966 before being acquired by Saint Æthelwold for the Abbey at Peterborough. It remained in this possession until the Dissolution of the monasteries (1536-41). The Bishop of Peterborough's estate, known as Burgh Park (P02969, P02970), was located 510m to the west and 700m to the south-west of the Site and included a chapel and gardens.

Post-Medieval and Modern Activity (Clarke 2012, fig.4)

- 1.3.28 During the post-medieval period, it is apparent that activity within the Study Area continued with a largely arable character in the west and pastoral in the east. However, by the 1630s great landowners were being granted contracts from King Charles I to be allowed to drain the Fens and create new farmland. This was deeply opposed by the local population who were losing their wetland livelihoods to the great landowners' profit. Windpowered pumps were used to help drain the wetlands. Shrinkage of the peats due to oxidisation caused by this drainage significantly lowered the ground level so that, by 1700, the Fens were under water once more. More powerful steam-powered pumps and improved flood defences were used to drain the Fens once more. Large ditches and electric pumps are still used today to drain large expanses.
- 1.3.29 The earliest cartographic source consulted for this report was the 1811 Inclosure Map for Peterborough (Clarke 2012, fig.7a). This showed the Site in three distinct plots belonging to Mr Humphreys in the north, William Salman in the centre and the Vicar of Peterborough in the south. There are no firmly located descriptions of these plots in the Claims on Peterborough Inclosure (Jacob 1811). No features are shown within these plots. There are two boundaries shown within the Site footprint, the northern-most of which still exists in small part at its eastern end and the southern-most of which survives as an open drain bisecting the Site.
- 1.3.30 The northern part of the eastern boundary of the Site and the boundaries with properties to the south-east still exist, though they are demarcated with modern fences. The southernmost boundary of the Site is still extant. To the south-east of the Site were two properties fronting on to Newark Road that may have contained structures. Messuages (dwellings) are mentioned to the north of the Site on land owned by Christopher Jefferey and Thomas Mann (Jacob 1811). Newark Road was, in 1811, known Newark Hill Road and land to the west of the Site was open land in the possession of the Bishop.

- 1.3.31 There is little change in the landscape shown before the Ordnance Survey (OS) First Edition Map of 1889 (not shown), although Flag Fen House (**L1126923**) is shown to the south-east of the Site. The OS Third Edition Map of 1927 (Clarke 2012, fig.7b) again shows little change in the landscape of the Site and its surroundings. A small enclosed building is depicted in the centre of the Site bordering on to a property to the south-east. The Perkins Engine Company works were founded at the Eastfield Plant on 10th November 1947 and expanded thereafter.
- 1.3.32 The OS map of 1972 (not illustrated) shows an area of playing fields in the northern part of the Site. The southern part of the Site appears to have been included within the Perkins Engine Company Works site and was divided into northern and southern parts by a fence. There were significant open drains located along the southern and western boundaries of the Site, as well as along the internal boundary of the Site. A sports pavilion was located in the north-eastern part of the Site, set back from Newark Road.
- 1.3.33 The character of the area around the Site has altered significantly since 1972, with a new commercial park created in all directions about the Site other than the west.

Aerial Photographs (Clarke 2012, fig.6)

- 1.3.34 There has been extensive examination of aerial photographs covering the Study Area by specialists studying the fenland environment. The PHER holds an overlay of archaeological features suggested in crop marks as identified by R. Palmer and updated to 2010. Features in proximity to the Site are described below. It is suggested that two linear features may cross the boundary of the Site in its south-western corner from the west. One of these linear features is orientated north-west to south-east and other is orientated south-west to north-east. It is possible that these features, if they exist, may form the corner of an enclosure.
- 1.3.35 To the west of the Site (approximately 70m) is an area subsequently developed as part of the Perkins Engine Company works. In this area were observed five or more linear features perpendicular to each other were observed, perhaps forming a series of enclosures or a field system.
- 1.3.36 To the east of the Site, 40m distant, was an area of dense crop marks that was subsequently developed for commercial buildings. This area was excavated in 2005 (Beadsmoore 2005) and it was found that a Bronze Age metalled surface (P51682) was responsible for a part of the crop marks, that two linear features suggested by crop marks formed part of an enclosure, and several other linear features were aligned with crop marks.
- 1.3.37 To the south of the Site, 140m distant, begins an area of dense crop marks that was subsequently developed for commercial buildings. The area includes eight possible straight linear features that do not appear to align with each other. There are four possible enclosures, one of which appears to be small and could in fact represent a large structure.

1.4 Acknowledgements

1.4.1 The author would like to thank Stephanie Gray of Turnberry Consulting and Peter Webber of Perkins Engines who commissioned and funded the work. The project was managed by Richard Mortimer and the Brief for archaeological works was written by Rebecca Casa-Hatton, who also monitored the works on behalf of Peterborough City Council. The site was directed by Gareth Rees and excavated by Matt Brookes, Kat



2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The objective of this evaluation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area. The principle aim of the evaluation in the northern plot was to characterise the geophysical anomalies (Figure 2).

2.2 Methodology

- 2.2.1 A written scheme of investigation (WSI) was commissioned by Turnberry Consulting and produced by Wessex Archaeology (2013). The WSI stated that 39 trenches measuring 30m by 1.80m would be excavated.
- 2.2.2 Machine excavation was carried out under constant archaeological supervision with a tracked 360 CAT excavator using a toothless ditching bucket.
- 2.2.3 The site survey was carried out by the author using Leica GS08 dGPS.
- 2.2.4 Spoil, exposed surfaces and features were scanned with a metal detector. All metaldetected and hand-collected finds were retained for inspection, other than those which were obviously modern.
- 2.2.5 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.
- 2.2.6 After a site meeting with Rebecca Casa-Hatton from Peterborough City Council it was agreed that not all exposed features should be excavated at the evaluation stage. Groups of postholes were characterised by excavating one sample feature whilst larger cut features were tested with sondages rather than half sectioned.
- 2.2.7 A total of 13 samples were taken from a variety of features across the site for environmental analysis. Samples were no great than 20 litres and were designed to characterise the state of preservation, quality and type of charred organic remains surviving on the site.
- 2.2.8 The site conditions varied between the northern and southern plots. In the southern plot, which lay under turf, up to 1.40m of modern made ground was encountered sealing the original topsoil which lay at c.3m O.D. and sloped up towards the north of the field. Subsoil was present below this level in places. Trench 37, located to the south-west of the southern plot, was not excavated due to the location a gas main. Trenches 33 and 34 were positioned in an area that had previously been used as a bowling green. Concrete installations in this area led to these trenches remaining unexcavated, 20m of additional trenching was added to Trench 35. Trenches 32, 35 and 36 were moved in order to avoid made ground in the bowling green area. Trench 31 was moved in order to avoid a modern access road but encountered contaminated rubble and a footing from a factory building that had previously stood on this site.
- 2.2.9 The northern plot had previously been the location of football pitches and was covered in grass or overgrown at the time of excavation. A building footing located to the northeast of the plot led to one trench (formerly Trench 23) not being excavated. Sporadic

strong signals were identified with the Cable Avoidance Tool in a c.20m wide area running parallel with the road to the east of the plot. Trench 24 was shortened due to this signal. No services, live or otherwise, were encountered during the archaeological works.

3 Results

3.1 Introduction

3.1.1 The results are presented below on a trench by trench basis, starting with those located in the northern plot (Trenches 1-29) and then those in the southern plot (Trenches 29-39). The northern plot lay under c.0.30m-0.40m of topsoil and an average depth of 0.30m of subsoil. There was very little modern disturbance uncovered in this field. The southern plot had been subject to several modern dumping and levelling episodes which resulted in the ground level being up to 1.50m higher than it had been previously. The original topsoil and subsoil was preserved under this build-up where truncation had not occurred. A comprehensive listing of trench depths, including geology, topsoil, subsoil and overburden deposits, as well as context descriptions can be found in Appendix A.

3.2 The Northern Plot (Figure 3a)

Trench 1, 2, 3 and 5

3.2.1 No archaeological features were uncovered in these trenches located at the north-west of the northern plot.

Trench 4

- 3.2.2 The geophysical survey had identified a linear anomaly running from north-west to south-east in this trench (Figure 2). Excavation revealed that this anomaly was most likely caused by a field drain on this alignment cut into the subsoil in this trench.
- 3.2.3 Three features, a pit (28) and two features that may be pits or ditches (24 and 26) were uncovered at the northern end of this trench. Feature 24 consisted of a shallow cut with moderate sides and a flat base measuring 1.20m wide and 0.3m deep. This feature, filled by mid grey-brown soft silty-clay fill (25), was only partially exposed and so its function was unclear; it may have been a pit or a ditch.
- 3.2.4 This feature was truncated by feature **26** which was also only partially exposed in this trench. This pit \ ditch, measuring in excess of 0.80m wide and 0.50m deep, had steep sides and a flat base and contained a mid greyish-brown soft silty-clay fill (27) from which animal bone, flint and charcoal were recovered (Appendix B; C2).
- 3.2.5 A pit (28), measuring 1.1m in diameter and 0.15m deep, was located 1.5m to the south of 26. This pit, with moderately sloping sides and a concave base, was filled by a light yellow-brown soft silty-clay fill (29) from which no artefacts were recovered.

Trench 6

3.2.6 Located to the south-east of the northern plot, in an area where geophysical survey had not taken place, this trench was oriented from north-east to south-west and measured 30m in length and 1.80m wide. One feature (55) was located at the north-eastern end of this trench. Feature 55, measuring 1m wide and 0.60m deep, was not fully exposed and may have been a pit or a ditch terminal. The feature, with moderately sloping sides and a flat base, contained a mid bluish-grey soft silty-sand basal fill (56) and gravelly upper fill (57) from which no artefacts were recovered.

Trench 7

3.2.7 This trench, located to the south-west of the northern plot, contained six archaeological features. The most westerly feature was a pit (63), measuring 1.54m wide and 0.18m

deep. This pit, with moderately sloping sides and a convex base, contained a single silty-sand fill (62) from which burnt stone and charcoal was recovered (Appendix B; C2). A group of five postholes (65, 66, 67, 68 and 69), 0.80m apart, was located 4m to the east of this pit. These postholes ranged from 0.20m to 0.34m in diameter. One of these postholes (65) was fully excavated to a depth of 0.1m. This feature contained a dark brown-grey soft silty-sand fill (64) and no artefacts except a small amount of charcoal. Postholes 66, 67, 68 and 69 were arranged in a rectangle 0.85m wide by 1.60m long.

Trench 8

3.2.8 Two pits (71 and 72) were located 30m to the north-east in Trench 8. The southern-most pit (71), measuring 0.74m in diameter and 0.26m deep, contained a mid browngrey soft silty-sand fill (70) from which a single flint flake and charcoal flecks were recovered. The second pit, located 1.80m to the north, measured 0.80m in diameter and remained unexcavated. This feature lay partially under the baulk and so may have been a ditch terminal.

Trench 9

3.2.9 No archaeological features were uncovered in this north-south oriented trench, located 10.5m to the east of Trench 8.

Trench 10

3.2.10 This trench was oriented from north to south and contained two layers at its northern end. These layers (79 and 80), measuring up to 0.20m deep, got deeper to the north and may have been the fills of a large gently sloping cut or natural feature, such as a waterhole or palaeochannel, although this could not be ascertained during evaluation. These layers, consisting of mid greyish-brown silty-clay and sand, extended for 8m from the northern end of the trench. No artefacts were recovered.

Trench 11

- 3.2.11 Two features were uncovered in this trench located to the north-east of the northern plot. A posthole or small pit (53), located 2.70m to the east of waterhole 59, was circular in plan with steep sides and a concave base containing a dark blue-grey soft clay silt from which no artefacts were recovered (Plate 1).
- 3.2.12 A waterhole (**59**), located 4.75m from the western end of this trench, measured 3.50m wide and in excess of 1m deep (Plate 2). A 1m by 1m sondage excavated in this feature to characterise its depth, form and preservation uncovered two soft, sandy\clay silt fills (60 and 61) containing charcoal and burnt flint possibly indicating the location of a fire or hearth nearby (Appendix C2).

Trench 12

3.2.13 Located 10m to the south of Trench 11, 7m of a south-west to north-east oriented ditch was uncovered in this trench. This ditch (30), measuring 1.30m wide and 0.40m deep, had moderately sloping diffuse edges and contained three fills. The basal fill (33) consisted of a light brownish-grey soft clay-silt, the second fill (32) consisted of a mid orange-grey soft clay-silt with charcoal inclusions from which worked flint was recovered. The upper, tertiary fill (31) consisted of mid brownish-orange soft sandy-silt from which no artefacts were recovered.

Trench 13

3.2.14 The geophysical survey identified four anomalies in this trench which were joined for the sake of interpretation in to a north-west to south-east running linear feature (Figure 2). No linear feature was uncovered during excavation.

- 3.2.15 Two features were uncovered in this north to south oriented trench. A posthole (76), measuring 0.26m in diameter and 0.16m deep, was located 22.5m from the southern end of the trench. It contained a mid brown-grey friable clay-silt with moderate gravel inclusions from which no artefacts were recovered.
- 3.2.16 The second feature was a pit (78), measuring 0.92m wide and 0.22m deep, it was located 1.50m to the north-west and contained a mid brown-grey friable clay-silt from which no finds were recovered. This feature was not fully exposed, its eastern part lying under the baulk.

Trench 14

3.2.17 No features were uncovered in this north-east to south-west oriented trench located at the south-west of the northern plot.

Trench 15

- 3.2.18 The geophysical survey had identified two discrete anomalies in this trench and also predicted that a linear anomaly seen in Trench 27 would continue into the eastern end of the trench. This linear feature was not uncovered.
- 3.2.19 Oriented from east to west, this trench contained two features, a ditch and a pit or ditch terminal at the western end of the trench, possibly relating to the geophysical anomalies. The pit\terminal (41), measuring 1.18m wide and 0.28m deep, was sub-rectangular in plan, with steep sides and a concave base. It contained a single silty-clay fill (42) with no artefacts. The feature continued under the northern baulk.
- 3.2.20 The ditch (**43**), measuring 0.98m wide and 0.14m deep, was oriented north-south and contained a single silty-clay fill from which no artefacts were recovered. A continuation of this feature was not uncovered in Trench 16 to the south.

Trench 16

- 3.2.21 This trench, oriented from north-east to south-west, contained a ditch at its south-western end. The ditch (45), measuring 1.2m wide and 0.38m deep, was linear in plan with a 'U' shaped profile and steep sides. It contained a dark grey-brown soft silty-slay fill from which no artefacts were recovered. A feature, thought to be a glacial or natural feature was uncovered further to the south-west. No other features were uncovered in this trench.
- 3.2.22 This ditch may relate to an anomaly plotted on the geophysical survey. Another anomaly, plotted at the north-eastern end of this trench, was not uncovered.

Trench 17

- 3.2.23 Located to the south-east of Trench 16, this trench was oriented north-west to south-east and contained four features comprising two ditches and two pit type features. The ditches were located at the north-western end of the trench, both were aligned north-west to south-east and inter-cut at the north-east, however no relationship could be ascertained (Plate 3).
- 3.2.24 The westernmost ditch (47), measuring 1.42m wide and 0.28m wide, had steep sides and a concave base and was filled by a mid grey-brown soft silty-clay (48) from which no artefacts were recovered. Ditch 49, located 0.50m to the east, ran parallel with 47 and contained a mid grey-brown soft silty-clay (50) from which no artefacts were recovered. These ditches were located in the approximate area that an anomaly occurred in the geophysical survey.

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- 3.2.25 A sub-rectangular\linear feature with sharp sides and a flat base was located 8m to the south-east of the ditches. Measuring 1.76m wide and 0.3m deep, this feature may have been a shallow pit. No artefacts were recovered from its single silty-clay fill.
- 3.2.26 Another shallow pit\ditch type feature was uncovered 2.50m to the south-west. This feature (58), measuring up to 1.40m wide, was not fully excavated and contained no artefacts.

Trench 18

- 3.2.27 A ditch and a small pit or posthole were uncovered in this trench located at the south-east of the northern plot. The pit (39), measuring 0.4m in diameter and 0.22m deep, was sub-circular with a concave base and steep sides. It contained a dark reddish-brown soft clay-sand fill (40) from which a burnt\calcified material and charcoal was recovered.
- 3.2.28 Running on an east-north-east to west-south-west alignment, the ditch (**34**) measured in excess of 1.90m wide and 0.77m deep and was formed by a 'V' shaped cut with steep sides and a flat base (Figure 4, Section 10). It contained four fills. The primary fill (33) consisted of 0.23m of light reddish-grey soft sandy-silt from which very small fragments of flint tempered pottery, animal bone and charcoal were recovered (Appendix B; Appendix C1; C2). The second fill (36) consisted of a mid greyish-red soft sandy-clay which appeared to have derived from the north of the ditch. This may indicate the location of a bank associated with this feature. No artefacts were recovered from this fill. A 0.46m thick layer of mid blueish-grey soft sandy-silt (37) had accumulated above this bank material; occasional fragments of burnt clay or daub were recovered from this context. The upper fill of this ditch (38), measuring 0.06m thick, consisted of a mid reddish-grey firm sandy-clay from which no artefacts were recovered.

Trench 19, 21, 23 and 24

3.2.29 These trenches, located in the east and north-east of the northern plot, contained no archaeological features. Modern rubble was uncovered at the north of Trench 21.

Trench 20 and 27

- 3.2.30 The geophysical survey identified a series of anomalies, aligned north-west to south-east, running between Trenches 26, 27 and 20 (Figure 2). These anomalies were interpreted as a linear feature. In Trench 27 this linear feature was uncovered along with two pits to the south which related to the southern-most anomalies. A large anomaly identified at the south-western end of Trench 20 was not uncovered during excavation and may have been a natural or geological feature.
- 3.2.31 These trenches, located in the eastern central area of the northern plot, were joined 17m from the north of Trench 27. The ditch (22), identified in Trench 26, was located in these trenches (86) running on the same north-west to south-east alignment although it did appear to curve slightly eastwards as it progressed southwards. The excavated segment in this trench, measuring 1.50m wide and 0.42m deep, contained a single dark grey-brown friable silty-clay from which no artefacts were recovered (Figure 4, Section 27).
- 3.2.32 Two irregular shallow features (**88** and **89**) were uncovered at the southern end of Trench 27. These features, measuring in excess of 2m wide and 0.46m deep, contained mid grey-brown friable silty-clay fills from which no artefacts were recovered.

Trench 22

3.2.33 At the east of the northern plot, this trench, oriented east to west, contained two archaeological features. A ditch (93), measuring 1.25m wide, was located a the western end of the trench. This feature remained unexcavated. Located 11.5m to the east, a small pit (91), measuring 1.24m wide and 0.40m deep, was formed from a circular 'U' shaped cut with steep side and a concave base. No artefacts were recovered from the single mid brown-grey soft clay-silt fill (92).

Trench 25

- 3.2.34 In the north-east corner of the northern plot Trench 25 was orientated from north to south and contained two archaeological features. A pit (84), located 6m from the southern end of the trench, measured 0.60m in diameter and 0.22m deep. It was formed from a circular, steep sided cut with a concave base in which a mid brown grey soft clay silt (85) had accumulated. No artefacts were recovered from this fill.
- 3.2.35 Located 10m to the north of the pit, a ditch (**81**) ran from east to west across the trench. This 'V' shaped ditch, measuring 1.50m wide and 0.42m deep, contained a dark greybrown friable silty-clay fill from which no artefacts were recovered.

Trench 26

- 3.2.36 The north-west to south-east oriented ditch (86), uncovered in Trench 27 5m to the south and identified by the geophysical survey, continued in this trench (ditch 22). This part of the ditch, measuring 1.45m wide and 0.50m deep, was formed from a steep sided, 'U' shaped cut with a concave base and was filled by a light grey-brown soft claysilt (Plate 4). A fragment of a polished jadeitite axe (Figure 5; SF1, Appendix B), dating to the Late Mesolithic or Early Neolithic period, was the only artefact recovered from this feature along with a single charred grain and charcoal (Appendix C2).
- 3.2.37 A small round pit with a concave base (20), located 8m from the southern end of the trench, measured 0.55m in diameter and 0.12m deep. Its single clayey-silt fill contained no artefacts.

Trench 28

- 3.2.38 Located in the centre of the northern plot, this trench contained a pit or waterhole and a short segment of ditch. The pit had previously been identified as an anomaly on the plot of the geophysical survey.
- 3.2.39 The pit (97), measuring in excess of 1.70m wide and 0.36m deep, was formed from a circular, steep sided, flat based cut which contained three fills (Plate 5; Figure 4, Section 30). The 0.08m thick basal fill (96), consisted of a dark brownish-grey soft silty-sand which contained a dump of burnt emmer wheat and barley grains, along with a small amount of chaff and associated weed seeds (see discussion in Appendix C.2). Secondary fill 95 consisted of a mid yellow-brown soft silty-sand which appeared to have been redeposited natural, used to backfill the pit; this was sealed by 0.10m of dark brown-grey soft silty-sand (94) from which a single flint flake was recovered. The ditch at the eastern end of the trench was not fully exposed and remained unexcavated.

3.3 The Southern Plot (Figure 3b)

3.3.1 Due to a large amount of disturbance, probably from buried metal, and the depths of the dumped overburden, the geophysical survey did not identify any discrete features in

this area. The trenches were located across the area with a view to uncovering a range of different landscape orientations.

Trench 29

3.3.2 No archaeological features were uncovered in this north-east to south-west orientated trench located at the north of the southern plot.

Trench 30

3.3.3 A single feature was located in this trench at a depth of 1.20m below the modern ground surface. This pit (11), measuring 1.40m wide and 0.20m deep, was sub-circular in plan with gradually sloping sides and a flat base. This feature was only partially exposed in this trench and it was unclear whether it was formed by archaeological or geological processes. Two modern features truncated the topsoil and subsoil to the west of the trench.

Trench 31 and 32

3.3.4 No archaeological features were uncovered in these trenches. The concrete footing of a modern building was uncovered in Trench 31. A layer of rubble, measuring 1.3m thick in Trench 32, had been dumped over this area before being covered with turf. The base of the modern truncation was not uncovered in Trench 32.

Trench 35

- 3.3.5 Located to the east of the old bowling green, this trench measured 50m in length and contained a ditch (15) 19m from its northern end (Plate 6). This north-west to south-east oriented ditch, measuring 3.20m wide and 0.30m deep, had gradually sloping sides and a flat base and contained a mid orange grey soft clay-silt (16) from which charcoal but no artefacts were recovered. No other features were uncovered in this trench.
- 3.3.6 The ditch was sealed by layer 19, consisting of light grey soft clay-silt, it may have been redeposited natural or an original subsoil built-up over the disused ditch. The original topsoil (10) survived above this layer to a depth of 0.30m and this was sealed by 1.20m of modern made-ground.

Trench 36

3.3.7 This trench, oriented east-south-east to west-north-west, was located to the south of the old bowling green. It contained two postholes. The most westerly posthole (7), measuring 0.35m in diameter and 0.14m deep, was circular with gradually sloping sides and a concave base. A second posthole (5), located 13m to the west, measured 0.45m in diameter and 0.10m deep. This posthole was circular in plan with gradually sloping sides and a flat base. No artefacts were recovered from either of these features. The original topsoil and subsoil were preserved below 1.3m of modern made-ground in this trench.

Trench 38 and Trench 39

3.3.8 Located to the south of Trench 36, Trenches 38 and 39 contained no archaeological features. The original topsoil and subsoil were sealed by 1.35m of modern madeground in these trenches.

3.4 Finds Summary

- 3.4.1 *Ceramic*: Both pottery and fired clay were recovered from a ditch in Trench 18. The pottery consisted of 9 sherds (2g) of flint tempered pottery. The sherds were too small (max 14mm wide) to identify form or accurately date but are likely to be Neolithic.
- 3.4.2 *Flint*: Six pieces of struck flint were recovered from pits and ditches across the site with no two pieces coming from the same context. They appear to broadly date to the Neolithic period.
- 3.4.3 Stone: A fragment of polished jadeitite axe was recovered from a ditch in Trench 26. This axe, dating from the Late Mesolithic\ Early Neolithic, had its source in the Alps and is an important find both regionally and nationally.

3.5 Environmental Summary

- 3.5.1 Animal bone: Seven fragments of animal bone were recovered from the evaluation. The total weight of bone recovered was 195g with 4 identifiable fragments being recovered from 4 contexts.
- 3.5.2 Environmental remains: Thirteen samples of up to 20 litres were taken for environmental analysis. The majority of the samples were devoid of plant remains other that charcoal. Two samples from pit **97** contain large assemblages of charred emmer wheat, spelt and barley.

4 DISCUSSION AND CONCLUSIONS

4.1 Reliability of the geophysical survey (Figure 2)

- 4.1.1 The interpretive plot of the geophysical survey identified less than fifty percent of the features uncovered during excavation in the northern plot. The ditch (22 and 86) uncovered in Trenches 26 and 27 was the most prominent linear anomaly identified by the geophysics. A second shorter anomaly, identified in the area of Trench 4, proved to have been a modern field drain. The change from Mudstone\Siltstone to Terrace Gravel geology at the south of the northern plot appears to have produced anomalies relating to natural features.
- 4.1.2 The pit\waterholes uncovered in Trenches 11 and 28 showed clearly on the geophysics, however the ditches in Trench 12 and Trench 25 did not register. This may be due in part to interference from modern rubble in the overburden. In light of the excavation results it is likely that many of the the anomalies registered by the geophysics, but not previously interpreted as archaeological and thus not investigated by this evaluation, may be of significance in understanding this prehistoric landscape.

4.2 Prehistoric settlement

- 4.2.1 The results of the evaluation undertaken on land to the east of the Perkins Engines Company site have uncovered archaeology spaced across the whole of the proposed development area with a core zone in the south and east of the northern plot. It is possible that the ditches uncovered in Trenches 25, 12, 26, 27 and 18 all form part of a single enclosure aligned north-east to south-west. A single fill of redeposited natural in the segment of the ditch in Trench 18 is indicative of an internal bank associated with this part of the enclosure. Another north-west to south-east oriented ditch was uncovered in Trench 35 in the southern plot. These types of enclosure tend to be associated with fieldsystems and animal husbandry from the Middle Bronze Age. The waterhole that was uncovered in Trench 11, and possibly the feature uncovered to the north of Trench 10, may be associated with this pastoral community. These findings are similar to those at the Broadlands, to the north of the site, and are likely to represent a continuation of this fieldsystem.
- 4.2.2 Postholes uncovered in Trench 7 may be evidence for a settlement consisting of timber-framed structures having existed to the west of the enclosure. Postholes uncovered in Trench 6 and Trench 8, as well as Trench 36 in the southern plot, could also be related to areas of settlement, however with only two postholes uncovered in each of these locations it was not possible to ascertain the types of structures that may have been present. The separation of the enclosures to the east, the waterholes to the north and settlement to the west may imply a planned landscape, probably originating in the Middle Bronze Age when semi-sedentary agri-pastoral regimes begin to appear in the archaeological record (see Pickstone 2011; Phillips and Mortimer 2012). The small amount of identifiable animal bone recovered from the site was all from cattle which tend to dominate the fauna on sites of this period.
- 4.2.3 The large quantity of burnt processed grain recovered from the pit in Trench 28 is indicative of occupation by an agricultural community. Such assemblages are most common from Iron Age contexts, although there are examples associated with Bronze Age sites. As discussed below (Appendix C2), the loss of what may have been an entire harvest either represents a disastrous event for this community or a significant

- sacred offering. Whatever the meaning of this deposit, it is regionally significant and excavation of the remaining part of this deposit will be vital to understanding its full importance.
- 4.2.4 Artefactual evidence was scarce from the site with a handful of lithics and highly abraded pottery in the fills of ditches and pits. These artefacts have been tentatively dated to the Neolithic period but their contexts make them of limited value for dating the features. With the lack of dating evidence from artefacts it is not possible to make a definitive statement of dating for this site, however it is notable that no Roman or medieval material was recovered from any context, given that a Roman site has been previously excavated less than 100m to the north. It is probable that some activity took place on this site during the Neolithic but that the bulk of the settlement and agripastoral features, principally the enclosure ditches, date from the Middle Bronze Age onwards, with pit and posthole features perhaps into the earlier Iron Age.

4.3 The jadeitite axe (Figure 5)

- 4.3.1 The fragment of polished jadeitite axe recovered from the upper fill of what may have been the south-western boundary ditch of an enclosure in Trench 26 is a rare find nationally with only 118 other examples known as of 2010 (Sheridan et al. 2011: 412). As with the other artefacts recovered form the site it is likely to have been deposited residually and so on current evidence cannot help to date the site. The significance of this find is increased in part by the context from which these types of polished axe are normally recovered, specifically water-logged contexts like the Sweet Track in Somerset (ibid: 414). It is possible that this find links the Bronze Age community on this site to the first Neolithic occupants of the region and the builders of the Flag Fen causeway.
- 4.3.2 This type of stone axe would have originated in the Italian Alps, where the jadeitite rock was sourced, in the Late Mesolithic or Early Neolithic (Bishop pers. comm.). Some of these axes may have been treasured possessions, often being at least two centuries old when they entered the UK during the Mesolithic\Neolithic transition (ibid: 415). The example from this site was deposited in a much later, probably Bronze Age context, potentially indicating that it had remained a treasured possession or sacred artefact for many thousands of years.

4.4 Significance

4.4.1 The site on land to the east of the Perkins Engines Company is of regional and national significance, whilst the find of the jadeitite axe may be of interest internationally (i.e. Sheridan et al. 2011). Planned prehistoric landscapes are relatively common in East Anglia and the East Midlands, and are being uncovered and recognised more frequently in recent years, though they are not yet fully understood. The proximity of this site to the internationally important wetland site of the Flag Fen causeway, as well as the Bronze Age burial uncovered to the north on the Broadlands site, adds greater significance to the archaeology uncovered here. Artefactual and archaeological evidence is indicative of occupation from the Neolithic to the Iron Age similar to the nearby site of Cat's Water where great significance can be placed on this longevity (Rees 2003; Pryor 2005).

4.5	Recommendations											
4.5.1	Recommendations for any County Archaeology Office.	future \	work	based	upon	this	report	will	be	made	by	the

APPENDIX A. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1										
General de	escription		Orientation	Orientation						
			Avg. depth	(m)	0.65					
			No archaeology uncovered eddish-brown silty-clay.	Width (m)		1.8				
III uno u circ	on. Ocolog	y 0011010t	o or light iv	oddion brown only olay.	Length (m)		30			
Contexts										
context no	type	Width (m)	Depth (m)	comment	finds	date				
1	Layer	-	0.4	Topsoil	-	-				
2	Layer	-	0.3	Subsoil	-	-				

Trench 2								
General d	escription	Orientation		E-W				
		Avg. depth	(m)	0.72				
				No archaeology uncovered ellowish-brown clay-silt.	Width (m)		1.8	
iii uiis ucii	ion. Ocolog	gy corisist	or light y	Chowish-brown day-sht.	Length (m)		30	
Contexts					<u>"</u>	,		
context no	type	Width (m)	Depth (m)	comment	finds	da	date	
1	Layer		0.4	Topsoil	-	-	-	
2	Layer		0.35	Subsoil	-	_		

Trench 3											
General d	escription	Orientation		NE-SW							
Located at			Avg. depth	(m)	0.72						
			eddish-brown clay-silt with vo field-drains 0.25m wide	Width (m)		1.8					
are presen			vo nota aramo otzom wido	Length (m)		30					
Contexts											
context no	type	Width (m)	Depth (m)	comment	finds	date					
1	Layer		0.4	Topsoil	-	-					
2	Layer		0.35	Subsoil	-	-					

Trench 4		
General description	Orientation	N-S
Located at the west of the northern plot. Three features were located	Avg. depth (m)	0.7
in this trench. One feature was a small pit whilst the other two were either pits or ditches but were not fully uncovered. The geology	Width (m)	1.8
consisted of light yellowish-brown silty-clay.	Length (m)	30

Geophysical anomalies seen in this location may have been caused by a field drain that ran from NW-SE through the lower topsoil.

	xts

context no	type	Width (m)	Depth (m)	comment	finds	date				
1	Layer		0.4	Topsoil	-	-				
2	Layer		0.3	Subsoil	-	-				
24	Cut	1.2	0.3	Cut of pit\ditch	-	-				
25	Fill	1.2	0.3	Fill of 24	-	-				
26	Cut	0.8	0.5	Cut of pit\ditch	-	-				
27	Fill	0.8	0.5	Fill of 26	Flint and animal bone	Neolithic?				
28	Cut	1.1	0.15	Cut of pit	-	-				
29	Fill	1.1	0.15	Fill of 28	-	-				

Trench 5								
General description	Orientation	E-W						
Located at the west of the northern plot. No archaeology uncovered	Avg. depth (m)	0.7						
in this trench. Geology consisted of light reddish-brown sand and gravel and a light greyish-brown silty sand. A sand fill modern pit was	Width (m)	1.8						
uncovered at the eastern end of this trench.	Length (m)	30						
		L .						

Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.4	Topsoil	-	-
2	Layer	-	0.25	Subsoil	-	-

Trench 6							
General de	scription				Orientation	NE-SW	
Located at	the east o	Avg. depth	(m) 0.7				
uncovered	in this trer	nch. The g	eology co	nsisted of patches of gravel	Width (m) 1.8		
in a light gr	eyish-brov	vn clay sil	t.		Length (m)	30	
Contexts							
context no	type	Width (m)	Depth (m)	comment	finds	date	
1	Layer	-	0.45	Topsoil	-	-	
2	Layer	_	0.35	Subsoil	-	-	
57	Fill	0.6	0.06	Fill of 74=55	-	-	
73=56	Fill	1	0.1	Fill of 74=55	-	-	
74=55	Cut	1	0.16	Cut of pit\terminal	-	-	

Trench 7						
General d	escription	Orientation	E-W			
Located at		Avg. depth (m)	0.64			
uncovered		Width (m)	1.8			
brown silty		alon blow	ii oana an	d gravel and a light greyish-	Length (m)	28.4
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.36	Topsoil	-	-
2	Layer	-	0.28	Subsoil	-	-
62	Fill	1.54	0.18	Fill of 63	Burnt stone	-
63	Cut	1.54	0.18	Pit	-	-
64	Fill	0.34	0.1	Fill of 65	Flint flake	-
65	Cut	0.34	0.1	Posthole	-	-
66	Cut	0.3	-	Posthole (unex)	-	-
67	Cut	0.25	-	Posthole (unex)	-	-
68	Cut	0.2	-	Posthole (unex)	-	-
69	Cut	0.25	_	Posthole (unex)	-	-

Trench 8	Trench 8											
General de	scription		Orientation	N-S								
Located in t	the centre	of the nor	Avg. depth	(m) 0.54								
in this trend	h. Geolog	y consiste	Width (m)	1.8								
gravel and	a light gre	yish-browi	d.	Length (m)	28							
Contexts												
context no	type	Width (m)	Depth (m)	comment	finds	date						
1	Layer	-	0.34	Topsoil	-	-						
2	Layer	-	0.26	Subsoil	-	-						
70	Fill	0.74	0.26	Fill of 71	Flint flake	Neolithic						
71	Cut	0.74	0.26	Pit	-	-						
72	Cut	0.9	-	Pit (unex)	-	-						

Trench 9								
General description	Orientation	N-S						
Located in the centre of the northern plot. No archaeology uncovered	Avg. depth (m)	0.65						
in this trench. Geology consisted of gravel and a light greyish-brown	Width (m)	1.8						
silty sand.	Length (m)	30						
Contexts								

context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.4	Topsoil	-	-
2	Layer	-	0.35	Subsoil	-	-

Trench 10											
General de	scription		Orientation	ı .	N-S						
Located at			Avg. depth	(m) C	0.72						
				y have been fills of a large avel and a light greyish-	Width (m)	1	1.8				
brown silty		ogy conon	otou or gre	avor and a light groylon	Length (m)	2	28				
Contexts											
context no	type	Width (m)	Depth (m)	comment	finds	date	е				
1	Layer	-	0.5	Topsoil	-	-					
2	Layer	-	0.32	Subsoil	-	-					
79	Layer	>1.80	0.16	Fill of large feature laying under northern baulk?	-	-					
80	Layer	>1.80	0.2	Fill of large feature laying under northern baulk?	-	-					

Trench 11	Trench 11											
General de	scription		Orientation	Orientation E-V								
Located at	the north o	of the nort	Avg. depth	(m)	0.62							
and a water	rhole type	feature, w	Width (m)		1.8							
consisted o	nd a light y	Length (m)		30								
Contexts	Contexts											
context no	type	Width (m)	Depth (m)	comment	finds	da	te					
1	Layer	-	0.4	Topsoil	-		•					
2	Layer	-	0.3	Subsoil	-		•					
53	Cut	0.65	0.42	Postole\pit	-		•					
54	Fill	0.65	0.42	Fill of 53	-		•					
59	Cut	3.5	>0.8	Waterhole?	-		•					
60	Fill		0.7	Fill of 59	-	-	-					
61	Fill		>0.1	Fill of 59	-	-	-					

Trench 12									
General description Orientation E-W									
Located at the north of the northern plot. A ditch was uncovered in	Avg. depth (m)	0.75							
this trench with flint artefacts in the fills. Geology consisted of gravel	Width (m)	1.8							
and a light yellow-brown silty sand.	Length (m)	30							

Contexts	Contexts											
context no	type	Width (m)	Depth (m)	comment	finds	date						
1	Layer	-	0.45	Topsoil	-	-						
2	Layer	-	0.35	Subsoil	-	-						
30	Cut	1.3	0.4	Ditch	-	-						
31	Fill	0.45	0.2	Fill of 30	-	-						
32	Fill	0.65	0.3	Fill of 30	flint	Neolithic\Bronze Age?						
33	Fill	1.3	0.4	Fill of 30	-	-						

Trench 13						
General de	escription	1	Orientation	N-S		
Located in	the centre	of the no	Avg. depth	(m) 0.6		
uncovered	in this tren	nch. The n	atural cor	sisted of a mid to light	Width (m)	1.8
reddish bro	own sandy	-silt with fr	avel inclusions.	Length (m)	30	
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.3	Topsoil	-	-
2	Layer	-	0.3	Subsoil	-	-
75	Fill	0.26	0.16	Fill of 76	-	-
76	Cut	0.26	0.16	Posthole?	-	-
77	Fill	0.92	0.22	Fill of 78	-	-
78	Cut	0.92	0.22	Pit	-	-

Trench 14	1					
General d	lescription				Orientation	NE-SW
Located a	t the south	Avg. depth (m) 0.6				
were unco	vered in thi	is trench.	The natur	No archaeological features al deposits consisted of mid	Width (m)	1.8
reddish-brown silty sand moderate inclusions of gravel.					Length (m)	24
Contexts						,
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.3	Topsoil	-	-
2	Layer	-	0.35	Subsoil	-	-

Trench 15										
General description	Orientation	E-W								
Located at the south of the northern plot. Three anomalies were	Avg. depth (m)	0.54								
plotted on the geophysical survey in this trench. Two features were uncovered in this trench; a pit or ditch terminus and a ditch. The	Width (m)	1.8								

natural dep		isted of m	Length (m)	30		
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.3	Topsoil	-	-
2	Layer	-	0.3	Subsoil	-	-
41	Cut	1.18	0.28	Pit\ Ditch terminal	-	-
42	Fill	1.18	0.28	Fill of 41	-	-
43	Cut	0.98	0.14	Ditch	-	-
44	Fill	0.98	0.14	Fill of 43	-	-

Trench 16						
General de	escription	l			Orientation	NE-SW
Located at			Avg. depth ((m) 0.5		
				trench. A single ditch was posits consisted of mid	Width (m)	1.8
				ons of gravel.	Length (m)	30
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.3	Topsoil	-	-
2	Layer	-	0.3	Subsoil	-	-
45	Cut	1.24	0.38	Ditch	-	-
46	Fill	1.24	0.38	Fill of 45	-	-

Trench 17						
General de	escription	l			Orientation	NW-SE
Located at the south of the northern plot. An anomaly was plotted on						(m) 0.4
				ree ditches were uncovered sted of mid reddish-brown	Width (m)	1.8
silty sand fi				otod of find roadion brown	Length (m)	30
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.28	Topsoil	-	-
2	Layer	-	0.2	Subsoil	-	-
47	Cut	1.42	0.28	Ditch	-	-
48	Fill	1.42	0.28	Fill of 47	-	-
49	Cut	1.24	0.28	Ditch	-	-
50	Fill	1.24	0.28	Fill of 49	-	-
51	Cut	1.76	0.3	Ditch	-	-

Trench 18						
General d	escription				Orientation	NE-SW
Located at			Avg. depth (m) 0.68		
pit were ur orange-gre		Width (m)	1.8			
	o the north	-west at t	he north-e	astern end in order to	Length (m)	28
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.45	Topsoil	-	-
2	Layer	-	0.25	Subsoil	-	-
34	Cut	>1.9	0.77	Ditch	-	-
35	Fill	-	0.23	Fill of 34	Pottery and Bone	Neolithic?
36	Fill	-	0.4	Fill of 34	-	-
37	Fill	-	0.46	Fill of 34	Burnt clay\ daub	prehistoric
38	Fill	-	0.06	Fill of 34	-	-
39	Cut	0.4	0.22	Pit \ Posthole	Burnt bone	-
40	Fill	0.4	0.22	Fill of 39	-	-

Trench 19							
General de	escription				Orientation	E	-W
Located at	the east of	Avg. depth	(m) 0	0.7			
were unco	vered in thi	is trench.	•	eposits consisted of light	Width (m) 1.8		.8
orange-gre	y silty san	d.			Length (m)	3	0
Contexts					•	"	
context no	type	Width (m)	Depth (m)	comment	finds	date)
1	Layer	-	0.4	Topsoil	-	-	
2	Layer	-	0.3	Subsoil	-	-	

Trench 20		
General description	Orientation	NE-SW
Located in the centre of the northern plot. An anomaly was plotted on	Avg. depth (m)	0.7
the geophysical survey in this trench. The south-western end of this trench joined Trench 27. One feature was uncovered, ditch 86 , which	Width (m)	1.8
is described below under Trench 27. Several features which may have natural or tree boles were uncovered along the length of the trench. The natural deposits consisted of light orange-grey silty sand.	Length (m)	30

Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.4	Topsoil	-	-
2	Layer	-	0.36	Subsoil	-	-

Trench 21						
General de	scription				Orientation	N-S
				No archaeological features	Avg. depth	(m) 0.7
were uncov			Width (m) 1.8			
	grey clay-silt. A dump of modern rubble was uncovered at the northern end of the trench.					30
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.4	Topsoil	-	-
2	Layer	-	0.36	Subsoil	-	-

Trench 22						
General de	scription				Orientation	E-W
Located at	the east o	f the north	Avg. depth (m) 0.5			
uncovered	in this trer	nch. Natur	Width (m)	1.8		
reddish-gre	y clay-silt.				Length (m)	30
Contexts						·
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.45	Topsoil	-	-
2	Layer	-	0.15	Subsoil	-	-
91	Cut	1.24	0.4	Pit	-	-
92	Fill	1.24	0.4	Fill of 91	-	-
93	Cut	1.25	-	Ditch (unex)	-	-

Trench 23							
General de	escription				Orientation	1	NE-SW
Located at	the north o	of the nort	hern plot	No archaeological features	Avg. depth	(m)	0.62
were uncov	∕ered. Natı			ted of mid to light reddish-	Width (m) 1.8		
grey clay-s	ilt.				Length (m)		30
Contexts							
context no	type	Width (m)	Depth (m)	comment	finds	da	ate
1	Layer	-	0.45	Topsoil	-		-

2	Layer	-	0.25	Subsoil	-	-
Trench 24						
General d	escription	1			Orientation	E-W
Located a	t the north	of the nor	thern plot	No archaeological features	Avg. depth (m)	0.65
were unco	vered. Nat			ted of light yellow -brown	Width (m)	1.8
sandy silt.					Length (m)	20
Contexts						'
contoxt		Width	Donth			

context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.3	Topsoil	-	-
2	Layer	-	0.35	Subsoil	-	-

Trench 25							
General description					Orientation	N-S	
Located at the north of the northern plot. A ditch and a posthole were					Avg. depth (m)	0.6	
uncovered in this trench. Natural deposits consisted of light yellow -brown sandy silt.					Width (m)	1.8	
					Length (m)	30	
Contexts						- I	
context no	type	Width (m)	Depth (m)	comment	finds	date	
1	Layer	-	0.3	Topsoil	-	-	
2	Layer	-	0.35	Subsoil	-	-	
81	Cut	2.2	0.6	Ditch			
82	Fill	0.64	0.12	Fill of 81			
83	Fill	2.2	0.6	Fill of 81	Animal bone	-	
84	Cut	0.6	0.22	Posthole	-	-	
85	Fill	0.6	0.22	Fill of 84	-	-	

Trench 26								
General de	scription		Orientation		N-S			
Located in the centre of the northern plot. Three anomalies were					Avg. depth (m)		0.62	
plotted on the geophysical survey. A ditch and a pit were uncovered in this trench which was extended to the west at the southern end in						Width (m)		
order to exp hand-axe w of mid to lig	ose to the as recove	e full width red from t	Length (m)		30			
Contexts								
context no	type	Width (m)	Depth (m)	comment	finds	date		
1	Layer	-	0.4	Topsoil	-	-		

2	Layer	-	0.3	Subsoil	-	-
20	Cut	0.7	0.12	Pit	-	-
21	Fill	0.7	0.12	Fill of 20	-	-
22	Cut	1.45	0.5	Ditch	-	-
23	Fill	1.45	0.5	Fill of 22	Jadeitite axehead fragment	Late Mesolithic\Early Neolithic

Trench 27	Trench 27									
General de	scription		Orientation	N-S						
Located in			Avg. depth	Avg. depth (m) 0.47						
				ppeared to be a ditch and ontinued in to this trench.	Width (m)	1.8				
•				south of the trench.	Length (m)	30				
Contexts					- 1	1				
context no	type	Width (m)	Depth (m)	comment	finds	date				
1	Layer	-	0.3	Topsoil	-	-				
2	Layer	-	0.2	Subsoil	-	-				
86	Cut	1.5	0.42	Ditch	-	-				
87	Fill	1.5	0.42	Fill of 86	-	-				
88	Cut	-	-	Pit \ Ditch	-	-				
89	Cut	1.3	0.46	Pit?	-	-				
90	Fill	1.3	0.46	Fill of 90	-	-				

Trench 28									
General de	scription		Orientation	Orientation E-W					
Located in t		Avg. depth	Avg. depth (m) 0.47						
				ingle feature which may	Width (m)		1.8		
have been a waterhole was uncovered in this trench. It contained a lager amount of charred cereal. The natural consisted of a mid to light reddish brown sandy-silt with frequent gravel inclusions.							28.3		
Contexts	Contexts								
context no	type	Width (m)	Depth (m)	comment	finds	finds date			
1	Layer	-	0.32	Topsoil	-	-			
2	Layer	-	0.26	Subsoil	-	-			
94	Fill	>1.70	0.1	Fill of 97	Flint flake	-			
95	Fill	>1.70	0.12	Fill of 97	-	-			
96	Fill	>1.70	0.08	Fill of 97	-				
97	Cut	>1.70	0.36	Pit \ Waterhole					

Trench 29

General description					Orientation	NE-SW	
Located to			Avg. depth	Avg. depth (m) 1.2			
were uncov			Width (m)	1.8			
south-weste			Length (m)		30		
Contexts							
context no	type	Width (m)	Depth (m)	comment	finds	da	ate
1	Layer	_	0.5	Topsoil	-		-
2	Layer	-	0.7	Subsoil	-	,	-

Trench 30									
General d	lescription	1	Orientation	E-W					
Located to	the north	of the sou	Avg. depth (m)	1.2					
have been	a pit or tre	ee bole wa	as uncove	red at the eastern end of the	Width (m)	1.8			
trench. Th	ne natural d	consisted	range-brown gravely clay.	Length (m)	30				
Contexts									
context no	type	Width (m)	Depth (m)	comment	finds	date			
1	Layer	-	0.5	Topsoil	-	-			
2	Layer	-	0.7	Subsoil	-	-			
11	Cut	1.38	0.2	Pit\ tree bole	-	-			
12	Fill	1.38	0.2	Fill of 11	-	-			

Trench 31	Trench 31									
General de	scription		Orientation]	N-S					
			This trench was stepped	Avg. depth	(m)	1.4				
				No archaeological features nount of modern build-up	Width (m)		2.8			
was encountered throughout the trench. The natural consisted of a mid reddish-brown clayey-silt with frequent gravel inclusions.					Length (m) 30		30			
Contexts										
context no	type	Width (m)	Depth (m)	comment	finds	d	ate			
1	Layer	-	0.2	Topsoil	-		-			
2	Layer	-	0.2	Subsoil	-		-			
14	Layer	-	0.8	Modern	-		-			

Trench 32						
General description	Orientation	NW-SE				
Located to the north of the southern plot. This trench was stepped	Avg. depth (m)	1.8				
due to the depth of the natural deposits. No archaeological features were uncovered in this trench. The natural consisted of a mid	Width (m)	2.8				

reddish-bro amount of i throughout surface was	modern bu the trench	ild-up and . The bur	Length (m)	3	30			
Contexts								
context no	type	Width (m)	Depth (m)	comment	finds	finds date		
1	Layer	-	0.2	Topsoil	-	-		
2	Layer	-	0.3	Subsoil	-	-		
14	Layer	-	1.3	Modern				

Trench 33						
General description Orientation -						
	Avg. depth (m)	-				
Unexcavated due to concrete footing.	Width (m)	-				
	Length (m)	-				

Trench 34		
General description	Orientation	-
	Avg. depth (m)	-
Unexcavated due to concrete footing.	Width (m)	-
	Length (m)	-

Trench 35									
General de	scription		Orientation	NNE-SSW					
Located to t			Avg. depth	(m)	1.9				
				This trench was extended subsoil of the old land	Width (m)		2.8		
from 30m to 50m. The buried topsoil and subsoil of the old land surface was uncovered under the modern build-up. A ditch was uncovered in this trench. The natural consisted of a mid grey-brown clayey-silt with occasional gravel inclusions.							50		
Contexts									
context no	type	Width (m)	Depth (m)	comment	finds	da	ate		
1	Layer	-	0.18	Topsoil \ turf	-		-		
9	Layer	-	0.2	Modern clay deposit	-		-		
10	Layer	-	0.28	Buried Topsoil (O.L.S.)	-		-		
15	Cut	3.6	0.38	Ditch	-		-		
16	Fill	3.6	0.38	Fill of 15	-		-		
17	Layer	-	0.62	Modern rubble	-	-			
18	Layer	-	0.48	Modern build-up			-		
19	Fill	2.4	0.06	Fill of 15	-		-		

Trench 36									
General de	scription		Orientation	WNW-ESE					
Located to t			Avg. depth (ı	n) 1.8					
	•		•	Two postholes were stepped due to the depth	Width (m)	2.8			
of the natur uncovered of mid orange	al deposit	s. The bur modern b	Length (m)	32					
Contexts						·			
context no	type	Width (m)	Depth (m)	comment	finds	date			
1	Layer	-	0.5	Topsoil	-	-			
-	Layer	-	1.3	Modern build-up	-	-			
5	Cut	0.45	0.1	Posthole	-	-			
6	Fill	0.45	0.1	Fill of 5	-	-			
7	Cut	0.35	0.14	Posthole	-	-			
8	Fill	0.35	0.14	Fill of 7	-	-			

Trench 37						
General description Orientation						
	Avg. depth (m)	-				
Unexcavated due to gas main	Width (m)	-				
	Length (m)	-				

Trench 38									
General de	escription		Orientation	E-W					
Located to			Avg. depth (m) 1.5						
due to the o			Width (m)	2.8					
orange-bro buried tops under the r	wn clayey oil and sul	-silt with cosoil of the	Length (m)		27				
Contexts									
context no	type	Width (m)	finds	da	ate				
1	Layer	-	0.1 Topsoil				-		
2	Layer	_	0.05	Subsoil	-	-			
-	Layer	-	1.35	Modern build-up					

Trench 39		
General description	Orientation	E-W
Located to the south of the southern plot. No archaeological features	Avg. depth (m)	1.2

were uncovered in this trench. The natural consisted of a mid	Width (m)
orange-brown clayey-silt with occasional gravel inclusions. The buried topsoil and subsoil of the old land surface was uncovered under the modern build-up. This trench was extended in a 2m by 2m box at the eastern end in order to investigate a humic horizon which later became apparent as the buried topsoil.	Length (m)

Width (m)	1.8
Length (m)	30

Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.1	Topsoil\turf	-	-
2	Layer	-	0.1	Subsoil?	-	-
3	Layer	-	-	Natural	-	-
4	Cut	-	-	Natural features	-	-
9	Layer	-	0.2	Modern clay layer over TS	-	-
10	Layer	-	0.25	Buried topsoil	-	-

APPENDIX B. FINDS REPORT

By Gareth Rees and Richard Mortimer

- B.1.1 The evaluation at Perkins Engines, Fengate, Peterborough produced a small assemblage of finds (Table 1) including pottery (9 sherds), fired clay\daub (0.04kg), flint (6 pieces) and a fragment of a stone axe.
- B.1.2 In total the pottery fragments, all recovered from context 35 (**34**), weighed less than 2g. One of the sherds had flint tempering, however it was not possible to ascertain any information on form or date other than to suggest the material is probably Neolithic in date
- B.1.3 The fired clay, all recovered from context 37 (**34**), consisted of five fragments varying from 50mm by 50mm to 10mm by 10mm. These may have derived from daub or may have been part of a hearth installation nearby.
- B.1.4 The struck flint assemblage consisted of 5 pieces from five different contexts suggesting that all may have been residual in later fills. Four of the pieces, from contexts 27, 64, 94 and 70, were flakes, whilst that from context 32 (30) was a denticulated tool. A piece of burnt flint was recovered from context 96 (97) whilst an environmental sample produced a quantity of burnt flint from waterhole 59.
- B.1.5 A fragment of polished jadeitite axe, measuring 54mm in cross-section, 64mm long and 16mm at its widest point was recovered from the upper fill of ditch 22, Trench 26 (Figure 5). The axe had squared edges measuring from 6mm at the greatest to 3mm towards the tapering end. One of the surfaces had a dot and line design engraved parallel with the length of the axe.
- B.1.6 This type of stone axe would have originated in the Italian Alps, where the jadeitite rock was sourced, in the Late Mesolithic or Early Neolithic (Bishop pers. comm.). In 2010 118 jadeitite axes were known from the UK and Ireland (Sheridan et al. 2011: 412). These axes are often found in wetland or topographically distinctive locations and it is likely that the close proximity to Flag Fen may have been significant in bringing this artefact to this area (ibid: 414). Many such axes appear to have been deposited after deliberate breakage and it is possible that breakage and burning were part of the ritual necessary for deposition.
- B.1.7 Some of these axes may have been treasured possessions, often being at least two centuries old when they entered the UK during the Mesolithic\Neolithic transition (ibid: 415). The example from the Perkins Engines site, Fengate, Peterborough appears to have been deposited in a much later, probably Bronze Age context, maybe indicating that it remained a treasured possession or sacred artefact for millennia.

Context	Cut	Trench	Material	Object Name	Weight in kg	Comments
23	22	26	Jadeitite	axe	0.09	SF 1
27	26	4	Bone		0.01	
27	26	4	Flint		0.01	
32	30	12	Flint		0.01	
35	34	18	Animal bone		0.09	
35	34	18	Ceramic	Vessel	0	
37	34	18	Fired clay		0.04	
57	58	17	Animal bone		0.02	
64	65	7	Flint		0	
70	71	8	Flint		0.01	
83	81	25	Animal bone		0.07	
94	97	28	Flint		0	
96	97	28	Flint		0.01	

Table 1: Finds quantification

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Animal Bone

By Chris Faine

C.1.1 Seven fragments of animal bone were recovered from the evaluation. The total weight of bone recovered was 195g with 4 identifiable fragments being recovered from 4 contexts. Cattle was the only taxon present. Contexts 27 and 35 contained a partial astragalus and tibia respectively. A butchered juvenile metatarsal fragment was recovered from context 57, along with a portion of pelvis from context 83.

C.2 Environmental samples

By Rachel Fosberry

Introduction

- C.2.1 Thirteen bulk samples were taken during the evaluation phase of the site at Perkins Engines, Peterborough in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.
- C.2.2 Features sampled include ditches, pits and post holes, most of which did not contain dating evidence but are thought to be later prehistoric.

Methodology

C.2.1 The total volume (up to 20 litres) of each bulk sample was processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residues were allowed to air dry. A magnet was dragged through each residue fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the handexcavated finds. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 2. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands and the authors' own reference collection. Nomenclature is according to Stace (1997). Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

C.2.2 Results

Sample No.	Context No.	Cut No.		Sample size (L)	Flot Volume (ml)	Cereals	Chaff	Weed Seeds	Charco al <2mm	Charco al > 2mm	Large animal bones	Burnt flint
1 2	16 27	15 26	ditch pit	15 17	15 30	0	0	0	++	0	0	0
_			cremati			-				•	•	•
3	40	39	on?	20	300	0	0	0	+	0	0	0
4	37	34	ditch	20	30	0	0	0	+	0	0	0
5	35	34	ditch	20	20	0	0	0	+	0	+	0
6	23	22	ditch	16	20	#	0	0	+	+	0	0
7	54	53	pit	16	40	0	0	0	+++	+++	0	0
_			waterin			_	_	_			_	
8	60	59	g hole	16	70	0	0	0	+++	+++	0	++++
9	62	63	pit post	18	60	0	0	0	+	0	0	0
10	64	65	hole	3	10	0	0	0	+	0	0	0
11	70	71	pit	17	60	0	0	0	+	+	0	0
12	94	97	pit	19	300	####	0	0	+	+	0	0
13	96	97	pit	14	2500	#####	#	##	+	+	0	0

Table 2: Environmental samples from PETPEE14

- C.2.3 The majority of the samples were devoid of plant remains other that charcoal fragments and a single, poorly preserved charred grain in Sample 6, fill 23 of ditch 22. Two samples (Sample 12 and Sample 13) taken from the upper (94) and lower (96) fill of pit 97. Both samples were found to contain assemblages of almost pure charred grain. Sample 12 produced a flot volume of 300ml whilst Sample 13 produced an initial flot of 1 litre and a subsequent second flot (produced by re-floating the dried residue) of 1.5 litres. The grains have been tentatively identified by their characteristic morphology as predominantly emmer (*Triticum dicoccum*) wheat with barley (*Hordeum vulgare sensulato*) and spelt (*T. spelta*) wheat also present. Many of the grains are coated with an orange layer most reminiscent of iron oxide. On examination of inside of several of the complete grains, the orange staining appears to have percolated throughout the grain coating the internal honeycomb structure. This may account for much of the grain not floating during the initial processing stage.
- C.2.4 Chaff elements are present in low proportion to the number of grains present. Most of the spikelet forks present can be identified as emmer wheat chaff due to their characteristic 'splayed' glumes. The glume bases themselves are thin and double-keeled. Occasional wider glume bases, with a single keel and more pronounced veins, can be identified as spelt wheat chaff. Occasional charred seeds of weeds such as docks (*Rumex* sp.) and knotweeds (*Polygonum* sp.) were also noted.
- C.2.5 Sample 8, fill 60 of watering hole **59** contains charcoal and a large amount of burnt flint indicating the remains of a fire or hearth, possibly involving the heating of water which was achieved by placing heated stones in the water.

Discussion

C.2.1 The samples from pit **97** have produced an abundance of charred grain that is rarely seen in prehistoric contexts. Only a small proportion of the context has been excavated, suggesting that the total grain content is likely to be extremely high, possibly equating to an entire harvest. Both emmer and spelt wheat were cultivated in this region since the Early Neolithic through to the Roman period (Grieg 1981) and they are both hulled

wheat varieties that require several stages of processing in order to release the grain from the outer chaff. The spikelets would have been parched to make the chaff brittle and then pounded to release the grain. Commonly the parching process would fail and the spikelets burnt. This does not appear to be the likely cause of the burnt assemblage at the site at Perkins Engines as there are very few chaff elements present. The grain must have been burnt after processing.

- C.2.2 The assemblage also contains numerous barley grains. The variety of barley cannot be determined at this stage as there are no diagnostic chaff elements present. The size of the grains suggest that they could be the six-row variety. The weed seeds recovered are of plants that are commonly found growing amongst crops. They are of a small enough size to have passed through the sieve at the later stage of processing and probably represent a much larger assemblage that has been lost at that stage.
- C.2.3 The dating of the deposit has not been determined and the plant remains present could feasibly date to the Neolithic, Bronze Age or Iron Age. Such large assemblages are rarely recovered from Neolithic or Bronze Age contexts and, if found to be of this date, it would be of both regional and national importance. Large quantities of grain are more common from Iron Age sites as the production of surplus and the organised storage of grain in pits occurs in this period. A similar assemblage of emmer wheat with lesser amounts of spelt and barley was found at Wandlebury Iron Age Hillfort in Cambridgeshire (Cyanowski, 2004) although, in this case, the cereals were considered to have been burnt in their spikelets.
- C.2.4 A large undated pit, surrounded by Bronze Age features and considered to be of this date by association, was excavated at Over, Cambridgeshire and contained large quantities of charred cereals (Ballantyne, pers comm.)
- C.2.5 Regardless of the date of the assemblage, the burning of such a huge quantity of labour-intensive, prime processed grain would have had either a devastating effect on the community if burnt accidentally or through attack. Alternatively it would have been a monumental offering if deliberately burnt for ritual reasons. Radiocarbon/AMS dating is recommended and the entire context should be 100% sampled if further excavations are to take place.

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APPENDIX E. OASIS REPORT FORM

Project De	etails									
OASIS Num	ber	oxforda	ar3-183914							
Project Nam	ne	Perkins	s Engines, l	Fengate, Peterb	oorough					
Project Date	es (field	dwork)	Start	09-06-2014			Finish 1	9-06-2	014	
Previous Wo	Previous Work (by OA East)			No			Future W	ork เ	Jnknown	
Project Refe	erence	Code	es							
Site Code	PETPE				Plannir	ng App.	No.			
HER No.					 Relate	d HFR/	OASIS No.			
					rtciato		O/1010 110.			
Type of Proj Prompt	ject/Te									
Tiompt		Dir	ection from	Local Planning	Authority	- PPS 5				
Developmen	t Type	No	t Recorded							
Please sele	ect al	l tech	niques	used:						
Aerial Photo	graphy	- interpr	etation	Grab-Saı	mpling			Re	mote Operated Vehicle Survey	
Aerial Photography - new				Gravity-C	Core			⊠ Sa	mple Trenches	
Annotated Sketch				Laser Scanning				Survey/Recording Of Fabric/Struc		
Augering				Measured Survey				⊠ Targeted Trenches		
Dendrochro	nologica	l Surve	y	Metal Detectors				☐ Test Pits		
Documenta	ry Searc	h		Phosphate Survey				☐ Topographic Survey		
	ital Sam	pling		Photogrammetric Survey				☐ Vibro-core		
☐ Fieldwalking	9			Photographic Survey		☐ Visual Inspection (In		sual Inspection (Initial Site Visit)		
⊠ Geophysica	l Survey	•		Rectified	Rectified Photography					
List feature type	es using	the N	MR Mon	nds & Their ument Type ve periods. If no	e Thesa	i urus ar			sing the MDA Object type te "none". Period	
Ditch			Uncertain	1			Jadeitite axe frag		Neolithic -4k to -2k	
Posthole			Uncertair			Flint	and hag		Neolithic -4k to -2k	
Fieldsystem				ge -2.5k to -700	<u> </u>				Select period	
<u> </u>			BIOIIZE A	.ge -2.5k to -700	,				Select period	
Project Lo	ocatio	on								
County	Cambr	idgehsir	re			Site Ad	ldress (incl	uding	postcode if possible)	
District Peterborough					Perkins Engines, Peterborough.			ough.		
Parish	Fenga	te			PE1 5BA					
HER	Peterb	orough	Museum							
Study Area	2ha	3ha				Nation	al Grid Ref	erenc	CE TI 24454 00774	

Project Originators							
Organisation		OA EAST					
Project Brief Originator		Rebecca Casa-Hatton					
Project Design Originator		Wessex Archaeology					
Project Manager		Richard Mortimer					
Supervisor Gareth		Gareth R	areth Rees				
Project Archives							
Physical Archive			Digital Archive			Paper Archive	
OA East			OA East			OA East	
PETPEE14			PETPEE14			PETPEE14	
Archive Contents/Media							
	Physical Contents	Digital Contents	Paper Contents		Digital Me		Paper Media
Animal Bones	\times	\times			□ Database		Aerial Photos
Ceramics	\times	\times			⊠ GIS		
Environmental	\times	\times			Geophysics		
Glass							Diary
Human Bones			☐ ⊠ Illustration		ıs	□ Drawing	
Industrial				☐ Moving In		nage	Manuscript
Leather					eets		
Metal							Matrices

× Text

☐ Virtual Reality

☐ Microfilm

Research/Notes

Misc.

Photos

⊠ Plans

 \times Report

 $\overline{\times}$ Sections

Survey

Other Notes:

None

Stratigraphic

Worked Bone

Worked Stone/Lithic X

Survey

Textiles

Wood

 \times

 \times

 \times

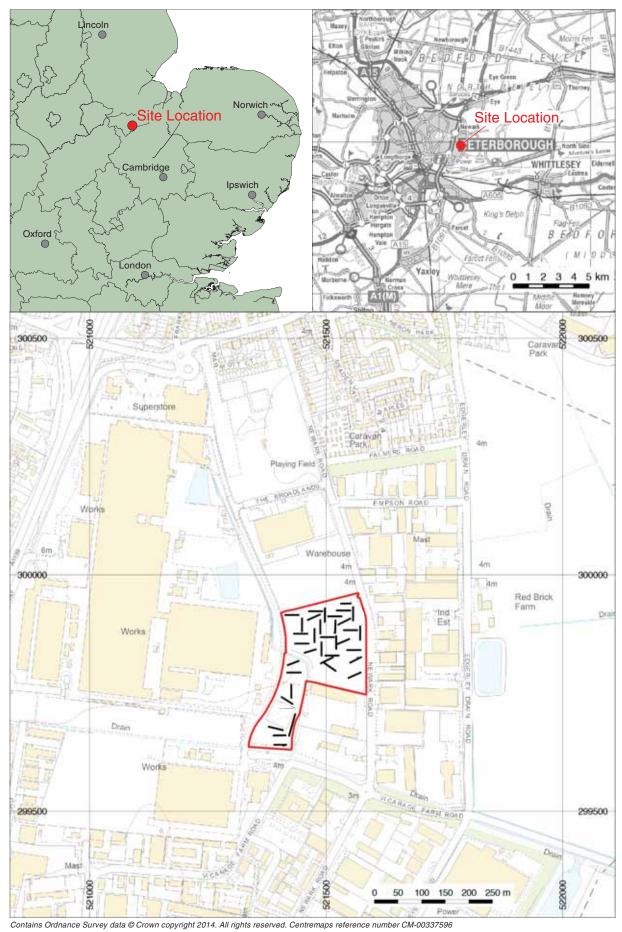


Figure 1: Site location showing archaeological trenches (black) in development area (red)





Figure 2: Plot of geophysical survey, showing evaluation trenches (pink) (After Bartlett 2012)

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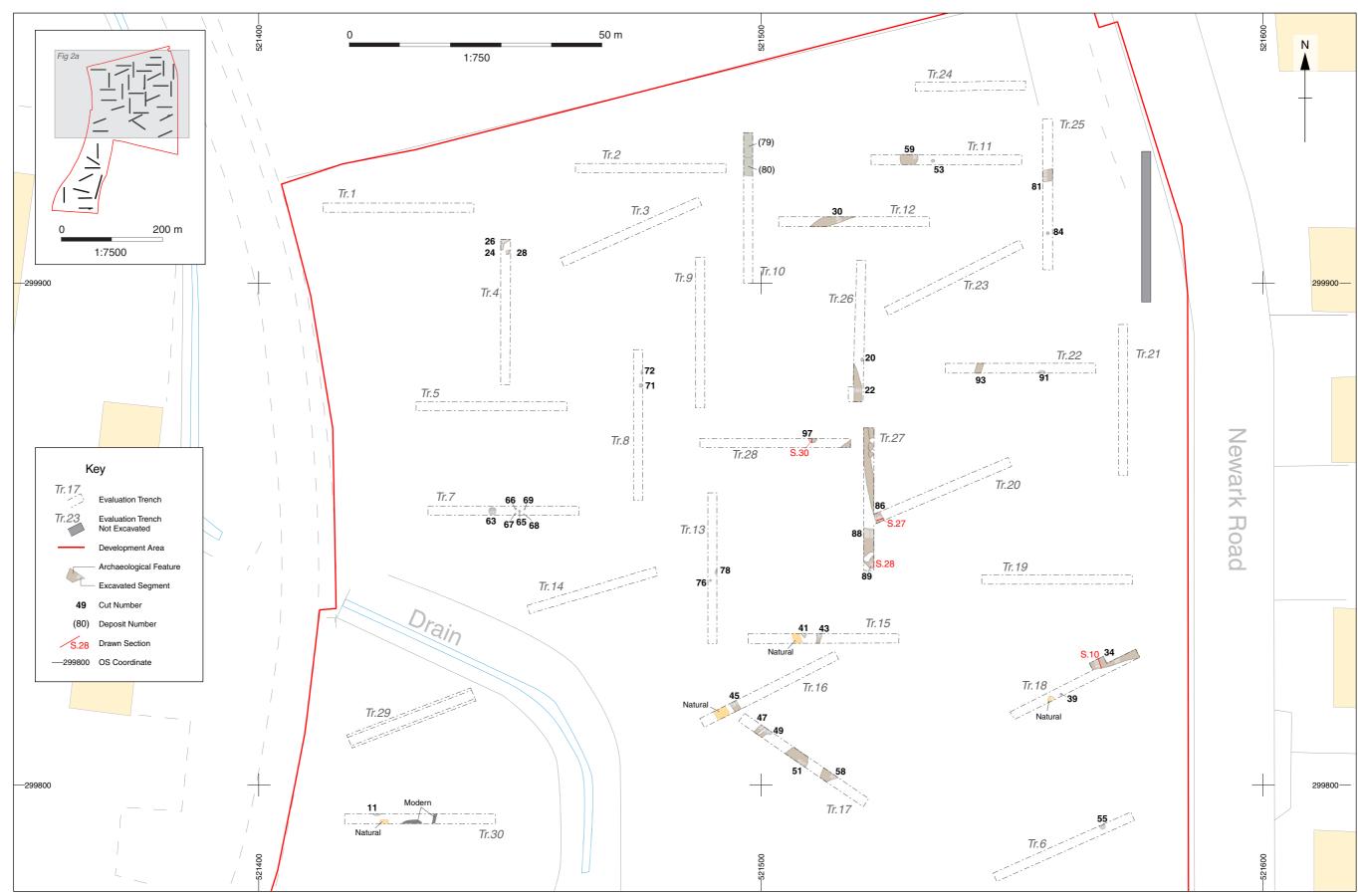


Figure 3a: Trench plan (north)

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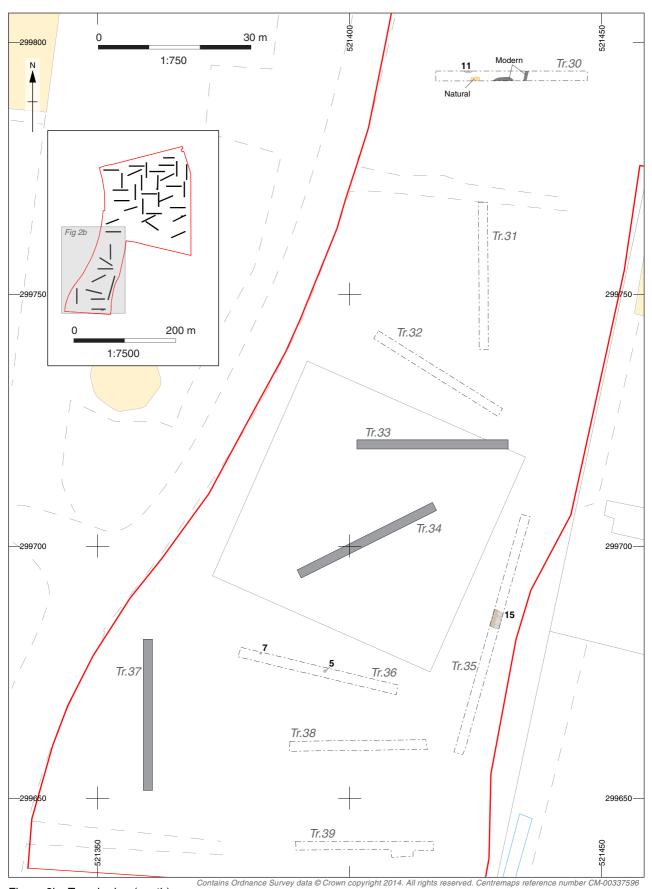


Figure 3b: Trench plan (south)



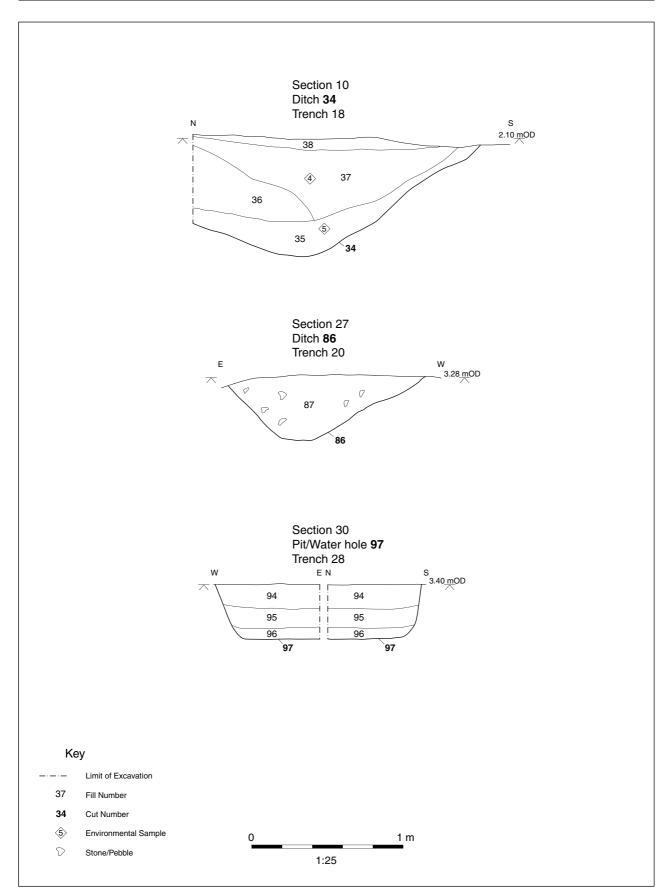


Figure 4: Selected sections





Figure 5: Small find 1. Fragment of jaditite axe from context 23, ditch 22





Plate 1: Pit 53, Trench 11, facing north



Plate 2: Waterhole 59, Trench 11, facing north





Plate 3: Ditches 47 and 49, Trench 17, facing north-east



Plate 4: Ditch 22, Trench 26, facing south





Plate 5: Pit 97, Trench 28, facing south



Plate 6: Ditch 15, Trench 35, facing east



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