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**Wykeham Quarry Proposed Extension
West Ayton
North Yorkshire
SE 990 825**

Archaeological Evaluation by Trial Trenching

Authorised by *Kent*

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West Ayton
North Yorkshire
SE 990 825**

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**Wykeham Quarry Proposed Extension
West Ayton
North Yorkshire
SE 990 825**

Archaeological Evaluation by Trial Trenching

Non Technical Summary

Archaeological Trial Trenching was carried out by MAP Archaeological Consultancy Ltd during October, November and December 2009 on two blocks of land that form a proposed extension to Wykeham Quarry, West Ayton Parish, North Yorkshire. The work was undertaken in advance of the submission of a forthcoming application for the extension to the quarry, and followed three previous stages of field evaluation that comprised an augur survey, geophysics and fieldwalking.

A total of 108 trial trenches were excavated (c. 10,700m²): 51 in the northern area, and 57 in the southern. Trenches 1-51 were excavated in the northern area and recorded two post-medieval linear features and two possible prehistoric pits. In the southern area (Trenches 52-108) a complex of Late Iron Age/Romano-British linear features and pits representing a settlement were identified on a low sand-hill, along with further post-medieval linear features.

A significant assemblage of pottery was recovered, along with two fragments of rotary quern, a copper-alloy fibula-type brooch and animal bone fragments.

1. Introduction

- 1.1 This report sets out the results of a programme of archaeological trial trenching carried out by MAP Archaeological Consultancy Ltd. on land east and south-east of Wykeham Quarry, West Ayton parish, North Yorkshire (Figs. 1 - 3: SE 990 825 centre). Evaluation in the field by geophysical survey, augur survey and fieldwalking form the subjects of separate reports. The site takes the form of two separate areas that will comprise proposed

extensions to the existing quarry. The trial trenching took place during October, November and December 2009.

- 1.2 The trial trenching was carried out on behalf of Hanson Aggregates prior to the application that will be submitted in 2010 for the quarry's extension.
- 1.3 The trial trenching was designed to establish the nature, location, extent and state of preservation of any archaeological remains within the proposed quarry extensions. The information provided from the trial trenching is intended to allow an assessment to be made of the impact of the proposed quarry extensions upon the archaeological deposits at the site. This assessment will form part of the information to allow an informed planning decision as to whether the quarry extensions should be permitted. Upon the granting of permission, this information will assist in identifying options for minimising, avoiding damage to, and/or recording any archaeological remains. This strategy follows the archaeology policy issued by the Secretary of State for the Environment contained in *Planning Policy Statement (PPS 5)*.
- 1.4 The MAP site code for the project was 01-08-09.
- 1.5 MAP Archaeological Consultancy Ltd would like to acknowledge the help and cooperation of Phase Site Investigations, Quest, Andrew Josephs and Hanson Aggregates who funded the project.
- 1.6 All maps within this report have been produced from the Ordnance Survey with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright, licence No. AL 50453A.

2. Site Description (centred at NGR SE 990 825)

- 2.1 The proposed extension forms two blocks: (a) an area north-west of Darrell's Low Farm (SE 9890 8280) 50ha. in size (Fig. 2), (b) an area c. 500m south-west of Darrell's Low Farm (SE 9915 8140), c. 27.5ha. in extent (Fig. 13).
- 2.2 The proposed extension lies between 1.5km and 3km south of the village of West Ayton with the existing quarry workings situated to the south and north-west. At the time of the trial trenching, the northern block had been sown to winter cereal; the southern block comprised two separate fields, the northern of which was sown with rape, the southern being covered by stubble.
- 2.3 The site boundaries consisted for the most part of deep drainage dykes: the Paddison Dike Drain forming the eastern boundary of the northern block, with the Preston Ings and Straits Drain forming the eastern and southern boundaries of the southern block.

3. Geology and Soils

- 3.1 The soils at the eastern part of the site are recorded as being of the Wharfe Association, deep stoneless permeable soils over river alluvium, with Wick 1 Association soils (coarse sandy over glaciofluvial and river terrace drift) at the north-west (Mackney *et al*).

4. Historical and Archaeological Background

- 4.1 Since the 1950s excavation and fieldwork have shown that an extensive Later Palaeolithic and Mesolithic landscape survives at Flixton and Seamer Carrs (c. 4km east of the site), partially buried under peat deposits. These sites were located along the former shoreline of a lake close to the 24m to 25m subsurface contour allowing the easy exploitation of the rich wetland resource.
- 4.2 Stray finds of Neolithic and Bronze Age date have been found in the eastern part of the Vale of Pickering, probably relating to peripatetic occupation that favoured the low sand hills around the margins of former lakes.

- 4.3 Later Prehistoric / Romano-British enclosure, field system and trackway complexes have been identified by aerial photography on the higher ground associated with the Wykeham moraine. The closest of these cropmark complexes lies c. 250m north-east of the northern extension block, and may represent a southward extension of activity along a low ridge from the more extensive east-west ladder settlement situated to the north.
- 4.4 In the medieval period the site lay within the lands of West Ayton township, part of the manor of Hutton Buscel. Ayton was recorded as *Atun* in the 1086 Domesday survey, the name meaning the 'settlement on the river' (Ekwall 1936). The medieval village lay c. 1.5km north of the site, the location of the proposed extensions being unenclosed 'carr' or low-lying rough pasture. This land-use extended at least up to the time of the preparation of the 1838 Plan of the Manor of Hutton Buscel.
- 4.5 A programme of archaeological work comprising desk-based assessment, geophysical survey, fieldwalking and augur surveys was undertaken in 2003 as part of an Environmental Impact Assessment for the currently permitted working area. The geophysical survey did not identify any definite archaeological anomalies, but showed a system of palaeochannels. The fieldwalking recovered two flint implements of probable early Neolithic date. Auguring identified no gravel outcrops or thick deposits of post-glacial peat, with the deposits being laid down in varying depths of open water between 10,000 and 8,000 BC; these deposits are very different from those recorded at the eastern end of the Vale of Pickering.
- 4.6 The results of the 2003 evaluation accurately predicted the results of the post-consent fieldwork carried out in the existing workings by Northern Archaeological Associates, funded by Hanson. Although no archaeological features have been found within the present area of consent, a major contribution has been made to the palaeoenvironmental reconstruction of this part of the Vale of Pickering.

- 4.7 As stated above, the present trial trenching was part of a staged approach in the field as laid out in the Scoping letter (Appendix 7), with geophysical survey, an augur survey and fieldwalking all being carried out in the autumn of 2009.
- 4.8 Available topographic models implied that only the northern extension area had clear archaeological potential, and so geophysical survey was confined to that area only. The geophysical survey identified many broad linear trends that would appear to indicate the course of palaeochannels (Phase 2009). Other more discrete linear trends were isolated, one of which (located in the western part of the area) was found on excavation to represent a post-medieval linear ditch. Modern field drains were also visible on the plots.
- 4.9 The augur survey consisted of 71 boreholes at 50m or 100m intervals across the northern extension area, and 43 across the southern extension area (Batchelor, 2009 a and b). The boreholes were up to 4m deep, and all were dug well into the subsurface sands and gravels. A number of palaeochannels were identified, along with deposits of peat and fine-grained water-lain sediments.
- 4.10 Fieldwalking was carried out in the northern extension area, and also the northern part of the southern extension (the greater part of this area was unploughed stubble unsuitable for this technique). Lines were fieldwalked at 10m intervals on a north-south axis, and all objects were picked up and retained (with the exception of obviously modern material such as drain fragments and plastic). The majority of the objects from the northern extension were modern, comprising pottery, CBM, glass, clay tobacco pipe and iron objects, but there were 18 flint artefacts, which were located in two distinct clusters. The southern extension area yielded only 8 modern sherds.

5. Objectives

5.1 The objectives of the archaeological evaluation work within the proposed development area were:

1. To determine by means of trial trenching, the nature, depth, extent and state of preservation of any archaeological deposits to be affected by the development proposals.
2. To prepare a report summarising the results of the work and assessing the archaeological implications of proposed development.
3. To prepare and submit a suitable archive to the appropriate museum.

6. Methodology

6.1 Evaluation

6.1.1 One hundred and eight trial trenches were excavated, at locations designed to give a good geographical spread of the site, and additionally to examine the areas where flint clusters had been recovered by the fieldwalking. There were 51 trenches in the northern extension area: Trenches 1-25 and 51 were 2m x 50m in size, Trenches 26-50 10m x 10m in size. Of the 57 trenches in the southern extension area, Trenches 52-80, 83, 85-6 and 88-108 were 2m x 50m in size, 81 and 82 10m x 10m, 84 2m x 30m and 87 2m x 20m. The total area evaluated was approximately 10600m².

6.1.2 The evaluation trenches were stripped of topsoil by an 8 tonne 360° tracked mechanical excavator, fitted with a toothless blade, operating under close archaeological supervision. Machining generally ceased at the top of archaeological or naturally-formed deposits, depending upon which was located soonest; a limited number of trenches were excavated more deeply to expose the natural deposit sequence. The exposed surfaces were cleaned by shovel, hoe or trowel as appropriate, and all subsequent excavation carried out by hand.

6.1.3 Postholes and pits were sectioned and segments were excavated across linear features in order to determine their function, form and relationships.

6.1.4 All work was carried out in line with the Institute of Field Archaeologists Code of Conduct (IFA 1998).

6.1.5 All artefacts were retained for specialist analysis.

6.1.6 Fifty-four soil samples were taken from excavated features for general biological analysis.

6.2 On-site Recording

6.2.1 All archaeological deposits were recorded according to correct principles of stratigraphic excavation on MAP's *pro forma* context sheets which are compatible with the MoLAS recording system. A total of 410 separate contexts were recorded.

6.3 Plans and Sections

6.3.1 The full extent of archaeological deposits were recorded in plan at a scale of 1:20 or 1:50 on drawing film. Sections of features and individual layers were drawn at 1:20 or 1:50 as appropriate, also on drawing film, and included an OD height. There were 41 plan and 137 section drawings.

6.4 Photographic Record

6.4.1 The photographic record comprised monochrome prints, and colour transparencies, in 35mm format, and a series of high-resolution digital images at six million pixels, recording all archaeological features encountered. There were 109 exposures in monochrome print and 126 in colour transparency, along with a commensurate number of digital images.

6.5 Finds

6.5.1 Finds were processed in accordance with English Heritage Guidelines (EH 1995). All finds were cleaned, identified, assessed, dated (where possible), marked (where appropriate), and properly packed and stored according to national guidelines.

6.5.2 The finds assemblage consisted of 173 pottery sherds, 135 fragments of animal bone, 2 flint artefacts, 1 glass fragment, 2 CBM fragments, 1 copper-alloy object (brooch), 1 composite object (Fe-bladed knife with bone handle), 1 iron object, 1 fired-clay object (possible spindle whorl or loomweight fragment), 3 pieces of slag, 2 stone objects (rotary quern fragments) and a clay tobacco pipe fragment.

7. Results

7.1 Northern Extension Area (Fig. 2; Pl. 1)

Two linear features were identified in the northern extension area: Ditch 1 (Trenches 15, 16, 35, 36 and 40) and Ditch 2 (Trenches 9 and 50). There were also two pits: Pit 31002 and Pit 33003; and two minor linear features (48002 and 48003). Archaeological deposits and finds were absent from the remaining forty trenches, where peat was exposed in Trenches 1-8, 10, 17-20, 23, 24, 27, 28, 41-47 and 51, and sand/gravel in Trenches 9, 11-14, 26, 29, 30, 32, 34, 37-39 and 49.

7.1.1 Ditch 1 (Figs. 3-6 and 12; Pl. 4)

Ditch 1 was traced through Trenches 15, 16, 35, 36 and 40 from the western to the central part of the field. The ditch had a rough east-north-east to west-south-west alignment and apparently equated to a linear anomaly known from the geophysical survey. Excavated in seven segments (15002, 16002, 35003, 35005, 36002, 40006 and 40007), Ditch 1 had a profile that varied from broad-V to shallow-U, and was between 0.07m and 0.34m deep, and 0.60m to 1.17m wide. The fills (15001, 16001, 35001, 35002, 35003, 36001 and 40004) were generally greyish silty sands, with the exception of 35002, which consisted of charcoal-rich silt. There were no finds.

7.1.2 **Ditch 2** (Figs. 7, 8 and 12; Pl. 5)

Ditch 2 was identified in Trenches 9 and 50 in the north-west part of the site. Three segments were excavated (9002, 50002 and 50004) showing Ditch 2 to have a variable broad-U or shallow-V profile, with a width varying between 0.95m and 1.14m, and a varying depth of between 0.35m and 0.46m. The fills (9001, 50001 and 50003) consisted of yellowish brown clay. Fill 9007 contained post-medieval material in the shape of a green glass bottle fragment and the bone handle of an iron knife.

7.1.3 **Pit 31002** (Figs. 9 and 12; Pl. 6)

Pit 31002 was situated in Trench 31 in the north-western part of the site. The pit was a 0.75m long oval feature with a depth of 0.13m. The fill (31001) consisted of brown sand with frequent coal or charcoal fragments. The feature contained no finds and was of possible natural origin.

7.1.4 **Pit 33003** (Figs. 10 and 12; Pl. 7)

This feature was identified in Trench 33 in the west/central area of the site. It was 2.20m in length and 0.32m in depth. The fill (33002) consisted of degraded peat and reddish brown clay that contained a flint scraper.

7.1.5 **Linear Features 48002 and 48003** (Fig. 11)

Situated in Trench 48 in the north-eastern part of the site these were shallow (c. 0.10m deep) linear deposits of greyish brown silty clay that probably related to relatively recent ploughing.

7.2 **Southern Extension Area** (Fig. 13; Pls. 2 and 3)

In the fifty-five trenches excavated in the southern extension area relatively complex, settlement-related deposits were recorded in Trenches 56, 81, 82, 84, 85, 86 and 87 on a low 'sand-hill' in the south/central part of the southern field. In addition a series of undated ditches were identified in the northern part of the site (in Trenches 54, 72, 73 and 74), and a post-medieval ditch

(Ditch 3) running east to west through trenches 82, 61, 56, 81, 67, 77, 78 and 79.

7.2.1 Trench 56 (Figs. 14 and 15; Pl. 8)

Three phases of inter-cutting features were recorded at the eastern end of Trench 56, with other linear features recognised in the centre of the trench.

The earliest features were two curvilinear gullies that ran closely alongside each other (56031 – excavated as segments 56013 and 56027; and 56033, excavated as segments 56014 and 56029), and a ditch (56025) situated on a similar north-west to south-east alignment some 2m to the west. These two gullies were both around 0.55m wide and 0.30m deep with flat-based-V profiles. The fills (56012/27 and 56014/28 respectively) consisted of greyish brown clay silt, 56012 containing vesicular sherds. Ditch 5602 was more substantial with a width of 1.80m and a depth of 0.95m; its dark greyish brown clay silt fill (56024) contained no finds.

The next phase consisted of two ditches (56021 and 56023) and a gully (56019) that cut across the earlier features on south-west to north-east alignments. The ditches were relatively broad (c. 0.85m), but shallow (c.0.25m). The fills (56020 and 56022 respectively) consisted of greyish silty clay, the latter containing calcite-gritted/vesicular sherds. Gully 56019 terminated half-way across the trench and was around 0.25m wide and 0.20m deep. The greyish silty fill (56016) contained no finds.

Concluding the sequence of features at the east end of the trench, a curvilinear ditch (56018) cut across the top of both Ditch 56023 and Gully 56019, running north-westwards before terminating. The ditch was around 0.60m wide and 0.40m deep. The fill (56017) consisted of grey silt that contained an amphora sherd, calcite-gritted/vesicular sherds and animal bone fragments.

In the centre of Trench 56 a ditch (56010) cut across on a south-west to north-east alignment, and a north to south aligned gully (56007) lay further to the

west. Ditch 56010 was around 1m wide and 0.30m deep, with two fills: 56008 (greyish silty clay) and 56009 (grey sandy clay). Gully 56007 was 0.80m wide but only 0.05m deep. The fill (56006) was brown silty clay. Neither feature contained any finds.

All of the features described above in Trench 56 were covered by a layer of brownish grey clay silt subsoil (56002) that was up to 0.40m deep.

Ditch 56005 cut through the subsoil and formed part of Ditch 3, described later in this report.

A modern field drain (56011) cut through the fills of Ditch 56005, and the sequence was completed by a 0.30m deep layer of modern ploughsoil (56001).

7.2.2 Trench 81 (Figs. 16 and 17; Pl. 9)

Trench 81 showed evidence of at least three phases of inter-cutting gullies and ditches.

The earliest phase concerned a shallow north-west to south-east aligned ditch, which was excavated in three segments (81012, 81024 and 81037). The ditch was c. 0.80m wide and 0.25m deep. The fills (81011, 81023 and 81036) were brownish silty sands or silty clays, the former containing calcite-gritted / vesicular sherds.

After the north-west to south-east ditch had become infilled, a series of steep-sided gullies on different alignments were dug across the area. In the south-west part of the trench, an L-shaped gully (segments: cut 81004, fill 81003 and cut 81014, fill 81013) terminated adjacent to an east-west gully (segments: cut 81016, fill 81015 and cut 81020, fill 81019). A short stretch of gully (segment cut 81022, fill 81021) ran southwards from 81016/81020, the relationship between the two being unclear. Subsequently, another gully (segment cut 81018, fill 81017) cut across the two earlier gullies. The fills were greyish silty clays, 81003 and 81015 containing calcite-gritted / vesicular sherds.

In the south-west area of the trench, three east to west-aligned gullies were recorded (segments: cut 81027/81031, fills 81026/81030; cut 81035, fill 81034; cut 81039, fill 81038). The fills were of greyish silty clay, 81034 containing a calcite-gritted / vesicular sherd. A later gully (segment cut 81029, fill 81028) cut into Gullies 81027 and 81039, the former also being cut by a shallow pit (cut 81033, fill 81032) that contained calcite-gritted /vesicular sherds.

A ditch terminal (or perhaps a pit - cut 81008) was recorded at the eastern bank of the trench, the grey clay fill (81007) containing calcite-gritted / vesicular sherds and a 1st century AD copper-alloy fibula brooch.

Much of the south-western area of Trench 81 was covered by a deposit of dark greyish clay silt (81002) that masked the features.

The latest archaeological feature in Trench 81 was a north-east to south-west aligned ditch (segment cuts 81006 and 81010), which cut through Deposit 81002. The distinct mixed yellowish brown clay fill (81005 and 81009 respectively) contained calcite-gritted / vesicular sherds, the latter also containing a Romano-British Oxidised coarseware sherd.

A north-south-aligned modern field-drain crossed the eastern part of the trench, and the sequence was completed by recent ploughsoil (81001).

7.2.4 Trench 82 (Figs. 18, 19 and 20; Pl. 10)

Trench 82 was 10m x 10m in size and was excavated c.5m north-west of Trench 56 in order to establish the northern limit of settlement-type activity. A sequence of four linear features was identified.

The earliest feature was the terminal of a steep-side and flat-based gully (82009) that was located in the south-eastern part of the trench. The dark grey clay silt fill (82008) contained no finds.

Gully 82009 was cut by a broader, shallower ditch (82007) on its southern side. Ditch 82007 had an initial east-west alignment, but returned to the south. The fill (82006) contained a number of coarse-gritty and calcite-gritted / vesicular sherds along with a rotary quern fragment.

Another excavated ditch segment (82005) was the continuation of post-medieval Ditch 3 (described later in this report).

A modern field-drain (cut 82003, fill 82002) roughly followed the alignment of Ditch 82005. A deep layer of modern ploughsoil (82001) covered the trench.

7.2.5 Trench 83 (Figs. 19 and 20; Pl. 11)

Four linear features were identified in Trench 83, all running on roughly parallel east to west alignments. From north to south, the features were Gully 83004, Ditch 3 (see below), Ditch 83007 and Ditch 83009.

Gully 83004 was a broad shallow feature with a single brown sandy clay fill (83003) that contained calcite-gritted / vesicular sherds.

Ditch 83007 was a broad feature with a c.1m deep flat-based V profile. The majority of the ditch was filled by a deposit of dark grey sandy clay (83005), with a deposit of light grey clay (83006) present on the northern edge. Fill 83005 contained calcite-gritted / vesicular sherds, along with a sherd of Romano-British greyware. The upper part of the ditch was filled by a 'sag' of subsoil deposit 83002.

Ditch 83009 was another broad feature, with a relatively shallow broad U profile. The single fill (83008) consisted of dark grey silty clay from which calcite-gritted / vesicular sherds were recovered.

7.2.6 Trench 84 (Figs. 21 and 23; Pls. 12 and 13)

Excavation in Trench 84 identified three linear features, from west to east: Gully 84010, Ditch 84015 and Ditch 84020. A pit (84007) cut into Ditch 84010.

Gully 84010 had a north-south alignment, with a 0.26m deep U-shaped profile. The lower part of the gully was filled by a distinct deposit (84009) that was composed of c. 75% oolitic gravel; this was overlain by a dark grey silty clay fill (84008). Fill 84008 contained calcite-gritted / vesicular sherds.

Ditch 84015 was situated c. 1.5m east of Gully 84010, running across the trench on a north-south alignment. It had a 0.60m deep broad rounded-V profile. The fills (84014, 84013, 84012 and 84011) were varying dark greyish silty clays, 84011 and 84013 containing calcite-gritted / vesicular sherds.

Ditch 84020 was situated in the central part of Trench 84, and had a curvilinear form that curved from south-east to north-west. The ditch was relatively large, with a width of c. 3.30m a depth of 0.95m. The four fills (84019, 84018, 84017, and 84016) were brownish or greyish silty clays, 84016 and 84018 containing calcite-gritted / vesicular sherds.

Pit 84007 was an oval feature that cut through the southern end of Gully 84010. It was steep-sided and around 0.40m deep. There were three brownish clay silt fills: 84006, 84005 and 84004. The basal fill (84006) was notable in that it contained limestone cobbles. Fill 84005 contained calcite-gritted / vesicular sherds.

A deposit of dark grey clay silt (84003) extended over the western 7m or so of Trench 84, and was cut by a modern field-drain (84002). Modern ploughsoil (84001) covered the entire trench to a depth of 0.30m.

7.2.7 Trench 85 (Figs. 22 and 23; Pl. 14)

Trench 85 was dug to assess the spread of the settlement activity, and identified a series of gullies and two stakeholes at the northern end of the trench.

A short stretch of narrow gully (cut 85014, fill 85013) was cut at its northern end by a narrow sinuous gully (cut 85016, fill 85015). Of these two dark greyish brown silty clay fills, 85015 contained calcite-gritted / vesicular sherds. The line of Gully 85014 was continued by a stakehole (cut 85018, fill 85017), and beyond that lay the terminal of a gully (cut 85010, fill 85009).

Gully 85016 was apparently earlier than a more substantial, north-west to south-east aligned gully (85004), whose dark greyish brown silty clay fill (85003) contained calcite-gritted / vesicular sherds. Gully 85016 was joined by a narrower gully (cut 85006, fill 85005) from the north-east; this may have been a run-off drain into the larger feature.

The terminals of two south-west to north-east aligned narrow gullies (85008 and 85012) were recorded at the western margin of the trench. Of the two greyish silty sand fills (85007 and 85011), 85007 contained a calcite-gritted / vesicular sherd. A shallow stakehole (cut 85020, fill 85019) was recorded to the east of the gully terminals.

A relatively shallow layer of subsoil (85002) was present at the northern end of the trench, and this was overlain by the modern ploughsoil (85001).

7.2.8 Trench 86 (Figs. 24 and 25; Pls. 15 and 16)

Trench 86 was the most southerly of the excavated areas in which settlement-related activity was identified. The deposits consisted of ditches and gullies (including probable ring gullies).

Ditch 86024 was excavated in the central part of the trench, running on a south-west to northeast alignment. It was 0.50m deep and 1.40m wide with a

broad-U profile, and was filled by a deposit of yellowish brown silty clay (86023). The ditch was re-cut as the V-profiled Ditch 86022, which had two silty clay fills (86021 and 86020).

Further to the east Gully 86028 headed westwards into the trench before ending in a rounded terminal. With a shallow-U profile, the gully was filled with greyish clay silt (86027) which contained calcite-gritted / vesicular sherds. Gully 86028 was respected by what appeared to be a stretch of ring gully (segments 86030 and 86034) that terminated at its western end, immediately adjacent to the east-west gully. Filled with greyish brown silty clay (86029 and 86033), it contained a single calcite-gritted / vesicular sherd.

A short stretch of east-west gully (cut 86032, fill 86031) was cut by a later north-south ditch (86019). Ditch 86019 was 1.80m wide, with a 0.48m deep U-shaped profile. There were two silty clay fills, 86018 at the base and 86017 at the top; the latter contained calcite-gritted / vesicular sherds.

East of Ditch 86032 a sequence of inter-cutting gullies and a pit were recorded. The earliest of these features was a shallow pit (excavated as 86014 and 86016) and a short stretch of east-west gully (cut 86006, fill 86005). Pit 86014/86016 was filled with brownish clay (86013/86015 respectively).

Ring gully 86010/86012 curved from the south-west to the north, with a similarly-aligned ring gully (86004) running on its western side, and cutting into Gully 86006. These ring gullies had similar widths (c. 0.40m) and U-shaped profiles; the fills (86009/86012 and 86003 respectively) consisted of greyish silty clay; there were no finds.

Gully 86008 cut through both Pit 86014/86016 and Ring Gully 86010/86012 on a south-west to north-east alignment. The gully had a 0.32m deep U-shaped profile and was filled with grey silty clay (86007) which contained a piece of rotary quern, and calcite-gritted / vesicular sherds.

A deposit of subsoil (86002) was recognised across the trench, and was cut by an east-west aligned field-drain (86025/ 86026). Modern ploughsoil (86001) completed the sequence.

7.2.9 Trenches 54, 72-4 (Figs. 26, 27, 28 and 31; Pls. 17 and 18)

This group of trenches were excavated in the northern sector of the proposed northern extension, revealing a number of clay-filled ditches.

Two ditches (74004 and 74008) were recorded in Trench 74, both with east-west alignments and 0.40m deep, broad trough-shaped profiles. Ditch 74004 lay at the north of the trench, and was 1.70m wide; it was filled by two deposits of silty clay (74003 and 74002). Ditch 74008 was situated to the south, and at c. 2m was slightly wider; it had three silty clay fills (74007, 74006 and 74005). Although there were no finds, Ditch 74008 pre-dated a north-south field-drain (74009/74010).

Ditch 54004 had a north-east to south-west alignment, with a 0.52m deep trough-shaped profile, and a width of 1.74m. There were two silty clay fills (54003 and 54002), which yielded no finds. The possible south-westward continuation of Ditch 54004 was identified in Trench 72 as Ditch 72003. This ditch had a 0.35m deep U-shaped profile and was 0.85m wide. The single silty clay fill (72002) contained a sherd of white-glazed earthenware, suggesting a 19th century date for the feature.

7.2.10 Ditch 3 (Figs. 29, 30 and 31)

Ditch 3 was recognised crossing the southern extension area in Trenches 80, 61, 56, 82, 83, 62, 77, 78 and 79 on a rough south-west to north-east alignment. Four segments were excavated (56005, 61006, 62007 and 82005), and because finds recovered from Segment 62007 showed it to be post-medieval in date, it was recorded in plan only in the other trenches (as contexts 80002, 83010, 77002, 78002 and 79002).

Ditch 3 had a broad, dished profile, which was widest at c. 4m in Segment 62007, and deepest at 0.6m in Segment 61006. The fills were greyish or brownish clay silts (56004; 61004, 61005; 62004, 62005, 63006; 82004). Dating for Ditch 3 was provided by finds of post-medieval pottery and clay tobacco pipe from 62004. Also, as a stratigraphic consideration, the fact that a field drain (62002/3) was dug into Segment 62007 when the ditch was only partly silted up supports a post-medieval date for the feature.

8. Discussion

- 8.1 The Trial Trenching established that the archaeological deposits in the two separate proposed extension areas were of different character. In the northern extension area two pits were recorded (one of dubious origin) and two relatively minor ditches, at least one of which was post-medieval date. It was in the southern area that significant archaeological features were found in a defined area, comprising enclosure ditches and settlement related features of Late Iron Age / Early Roman date – as well as post-medieval boundary ditches. The identified settlement area was approximately 60m in diameter, centred on the south-east part of Trench 81.

- 8.2 The presence of ring-gullies as well as pits and more minor gullies indicate the presence of a settlement, rather than enclosures relating simply to agriculture. Whether the settlement was enclosed is not certain. Although many enclosure-type ditches were recognised, their relationship with the domestic features is unclear, although in Trench 56 a ‘domestic’ gully was shown to be later than an enclosure ditch. All the trenches in which features were recorded show a relatively complex sequence of activity, but the nature of that activity, and how the separate areas relate to one another, could only be resolved by open-area excavation.

- 8.3 The pottery assemblage – which included both calcite-gritted / vesicular forms as well as a relatively small amount of Roman types (amphora, greyware and

oxidised coarseware - as well as a 1st century fibula) indicate that although there was a Late Iron Age origin for the settlement, its life extended into the 1st /2nd century.

- 8.4 The area of settlement was situated on a slight eminence forming a low hill of relatively well-drained sandy soils as predicted in the topographic survey (Quest 2009); such a low 'sand hill' must have had obvious advantages for occupation over the surrounding lower-lying boggy land – advantages that were demonstrated during wet periods as the trial trenching progressed. Areas of Iron Age / Roman settlement are known from cropmarks on the southern side of the Vale of Pickering at a similar elevation to those at Wykeham Quarry, e.g. west of East Heslerton Carr House (c. 10 km to the west). It could be that the heavier soils on the northern side of the Vale of Pickering, which inhibit the formation of cropmarks, have obscured the location of similar settlements that need either wide-scale physical intervention by trial trenching or the use of other techniques such as geophysical survey for their discovery.
- 8.5 There was no physical evidence whatsoever for activity in either of the extension areas from the 1st /2nd century to the post-medieval period, at which point the later ditches identified in both extension areas were dug, presumably to enhance the drainage of the land.
- 8.6 In conclusion, the trial trenching successfully identified the location and limits of an area of Late Iron Age / Romano-British settlement in the southern extension area, which was located on a slight 'sand-hill', the northern extension area revealing a very small number of presumed prehistoric pits, along with post-medieval ditches.

9. Bibliography

- Batchelor, C R 2009a Northern Extension, Wykeham Quarry:
Geoarchaeological Borehole Investigations,
Interim Report. *Quest* report 059/09.
- Batchelor, C R 2009b Southern Extension, Wykeham Quarry:
Geoarchaeological Borehole Investigations,
Interim Report. *Quest* report 059/09.
- English Heritage 1995 A Strategy for the Care and Investigation of
Finds.
- IFA 1998 Institute of Field Archaeologists Year Book.
- Mackney, D. *et al.* 1983 Soil Survey of England and Wales, Sheet 1:
Northern England.
- Phase 2009 Wykeham Quarry, North Yorkshire.
Archaeological Geophysical Survey.

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