Humber Field Archaeology

Archaeological Consultants and Contractors





ARCHAEOLOGICAL FIELDWORK

FOR EXTENSION TO CLAY EXTRACTION SITE

LAND AT HEMINGBROUGH

SELBY DISTRICT

NORTH YORKSHIRE

September 2023:

Post-excavation Assessment (Extraction Phase 11)

Humber Field Archaeology Report no. 2246

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Post-Excavation Assessment (Extraction Phase 11)

Work carried out for Plasmor Ltd

Planning Reference: NY/2015/0058/ENV National Grid Reference: SE 6689 3148 HFA Site Code:

HCQ 2023

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1 SUMMARY

In September 2023, Humber Field Archaeology undertook archaeological investigation and recording in Extraction Phase 11 at Hemingbrough Clay Quarry Selby District, North Yorkshire. The work, carried out on behalf of Plasmor Ltd., was undertaken as archaeological mitigation in advance of clay extraction, the requirement for archaeological mitigation having previously been identified through desk based assessment, geophysical survey and trial excavation. The current fieldwork followed more extensive investigations in the Eastern and Western Extensions to the quarry.

The earliest activity, of Iron Age and/or early Roman date, comprised a series of linear ditches representing the boundaries or sub-divisions of long narrow enclosures most likely created for the corralling of domesticated livestock. The linear features contained sherds of Roman pottery, as well as later, medieval, pieces assumed to have been introduced as a result of later agricultural activity. These features were continuations of features recorded to the north during previous phases of archaeological investigation in the Western Extension of the quarry, running south from a NW/SE-aligned ditched trackway.

At the southern end of the investigated area were recorded two adjacent kiln or oven bases of burnt and/or fired clay set into the natural subsoil, with an associated adjacent pit containing charcoal and fired clay in its upper fill. Iron nails and fragments of fired clay were recovered from the pit, though nothing which provides clear dating evidence or indications of what industrial process may have taken place. These features could range in date from the Iron Age to the medieval period.

The report concludes with recommendations that the results of the work in Extraction Phase 11 are included in a programme of analysis and publication involving presentation of the results of work across the whole quarry.

2 INTRODUCTION

2.1 Circumstances of the fieldwork

- 2.1.1 This post-excavation assessment report presents the results of archaeological investigation, excavation and recording carried out by Humber Field Archaeology (HFA) in September 2023 as mitigation in respect of planning conditions for an extension of clay quarrying by Plasmor Ltd on land immediately north of Hemingbrough, Selby, North Yorkshire. The fieldwork took place in Extraction Phase 11, the final part of the quarry extension, and follows previous episodes of archaeological investigation and recording.
- 2.1.2 The need for archaeological mitigation fieldwork had been established following confirmation of the presence of significant archaeological remains through assessment and evaluation, commencing with a desk study and proceeding through geophysical survey to trial excavation. Archaeological evaluation in advance of the submission of a planning application for the guarry extensions at Hemingbrough had been recommended by the North Yorkshire County Council Historic Environment Team (NYCCHET), following the conclusions reached by desk-based assessment (Hall and Steedman 2012). Evaluation initially took the form of geophysical survey of the full extent of the proposed eastern and western extension areas (Steedman 2014; Bunn 2014), which detected anomalies which strongly suggested the presence of archaeological features representing settlement of probable Iron Age and/or Roman date in both proposed extensions. The results were used to formulate a programme of further evaluation through trial trenching, which HFA undertook in August and September 2014, with the results confirming the results of the geophysical survey and establishing the presence of early settlement remains, predominantly of Roman date, in both planned extensions (Jobling 2014).
- 2.1.3 The Environmental Statement (ES), which accompanied the planning application, set out a mitigation strategy to ensure the proper investigation and recording of significant archaeological remains in advance of quarrying. HFA were appointed to undertake the archaeological fieldwork and produced a site-specific written scheme of investigation (WSI, Steedman 2015) setting out the mitigation strategy, which was submitted to and approved by NYCCHET in advance of the archaeological fieldwork commencing on site, and adherence to the WSI was made a condition of planning permission.
- 2.1.4 Planning permission for the quarry extension, construction of a new site access and restoration to nature conservation was granted in March 2016 (Application no. NY/2015/0058/ENV; Decision C8/2015/0280/CPO), with the following conditions 38-40 pertaining to archaeology:

38. The hereby approved development will be undertaken in accordance with the Written Scheme of Investigation Archaeological Excavation and Recording,

written by Humber Field Archaeology dated 22 May 2015. This scheme shall be adhered to at all times throughout the duration of the development.

39. The County Planning Authority shall be notified in writing within 14 days of the completion of archaeological mitigation fieldwork.

40. Within 24 months of completing the archaeological field investigations required by Condition 38 (above), a report which shall comprise of an assessment of the archaeological remains recovered from the site and an outline of the subsequent programme of analyses, publication (including a date for publication) and archiving, shall be submitted to and approved in writing by the County Planning Authority. The programme of analyses, publication and archiving shall thereafter be carried out in accordance with the details thus approved, and in accordance with a timetable agreed in writing with the County Planning Authority.

2.1.5 The current report covers archaeological mitigation undertaken in Extraction Phase 11. A post-excavation assessment report (Jobling 2022) has been issued previously concerning work in the Western Extension and adjacent parts of the original quarry, comprising Extraction Phases 5 and 7-11; the latter covered only the northernmost part of Extraction Phase 11, however, the majority having been examined in the current work.

2.2 Site topography and geology

- 2.2.1 Extraction Phase 11 (approximate centre SE 6689 3148) is bounded: to the south by the A63 Hull Road; to the east by the quarry access road bordering a small area of arable farmland; to the north by previous areas of clay extraction, namely Extraction Phases 10 and 11 (northern part); and, to the west by a private dwelling, Chantry House and a small stand-off area excluded from quarrying. The land lies at a height of around 7.20m OD, being situated on slightly higher ground north-west of Hemingbrough village, which lies on the edge of the flood plain of the River Ouse to the south. The current river channel is markedly further south now than it is known to have been in the medieval period, the River Ouse having changed its course and cut a subsequent shorter course across the neck of a former larger meander to adopt its present line. The former course of the river is still annotated on Ordnance Survey maps and indeed still forms part of the western boundary of the modern parish. This former course is also denoted by the line of the present Oldways Lane to the immediate west of Hemingbrough village.
- 2.2.2 The area of extraction overlies superficial deposits of the Breighton Sand Formation over bedrock of the Sherwood Sandstone Group (geological information obtained from the web-based BGS Geology Viewer – <u>https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer</u>).

2.3 Archaeological background

- 2.3.1 The quarry extensions lies in a landscape containing archaeological sites dating from the Iron Age to the post-medieval periods, the existence of which has been demonstrated through previous desk-based assessment (Hall and Steedman 2012), geophysical survey (Bunn 2014; Steedman 2014), evaluation (Jobling 2014) and more recently by large-scale archaeological investigations carried out in the Eastern and Western Extensions to the quarry (Jobling 2021, 2022). The work in the latter is most relevant to the current work in Extraction Phase 11, lying immediately to the north.
- 2.3.2 The reader is referred to the above reports for further information. To provide context to the current work, a summary of the results of the work in the Western Extension is reproduced below.

Investigations in the Western Extension 2017-2021

- 2.3.3 A programme of archaeological excavation and recording (Jobling 2022) was carried out by HFA between 2017 and 2021 in the Western Extension of Hemingbrough Clay Quarry. Six phases of activity were identified, dating from the Iron Age through to the modern period. Features assigned to Phases 1 to 3 represented the development of rural occupation on the site from the late Iron Age to the later Roman period, part of an early landscape for which further evidence had been recorded in the Eastern Extension to the quarry, and through air photography in the area to the north. The majority of the features of Phases 1-3 are shown on Fig. 2, where they provide context for the discoveries made in Extraction Phase 11.
- 2.3.4 Phase 1 activity was of late Iron Age and early Roman date, covering the period from the 1st century BC into the early 2nd century AD. A long double-ditched trackway was adjoined by a settlement comprising a series of rectangular enclosures and associated linear boundaries, respecting and incorporating the track, but predominantly following a more NE/SW orientation, a variance of more than 45 degrees, a generally similar alignment the Late Iron Age/Roman settlement recorded in the Eastern Extension at Hemingbrough quarry. The principal settlement enclosure lay alongside the trackway on its eastern side, with a sub-division at its southern end separating a roughly triangular area adjacent to the trackway from the remaining, more rectangular, interior of the enclosure. The triangular compartment contained a small number of possible water-collection pits and an open-ended rectangular gully, perhaps representing an animal pen, and may have been an area where livestock were kept apart from the main enclosure. Roughly central to the enclosure was a large roundhouse with opposing entrances, having a smaller ancillary structure directly adjoining its less wide western entrance; a central fire-pit may have been associated with spreads of burnt stone in adjacent areas. Towards the south, a smaller possible roundhouse was succeeded by a circular structure,

perhaps used for storage or crop-drying, while further north, small structures were possible animal holding pens or stores/workshops. East of the principal settlement enclosure were further ditched compartments containing possible water-collection pits and another roundhouse with two circular ancillary structures, while to the west, either side of the ditched trackway, were two small square enclosures. While similar small enclosures in the Eastern Extension were considered to potentially have had agricultural functions, in one of these a central pit contained substantial parts of two Roman glass vessels and fragments of melted glass; though there were no traces of human bone, these finds could have accompanied a cremation burial or been associated with a cremation ceremony.

- 2.3.5 A ditched compartment adjoining the north side of the Phase 1 principal enclosure, and accessed by an entrance from it, contained a substantial timberlined well or waterhole, around 9m by 7m in plan and almost 3m deep. The soft sides of the feature had been lined and revetted down to its base by various pieces of timber, some shaped, some unmodified, forming a tightly-packed arrangement held in place by driven stakes. The surviving pieces of timber included several of major archaeological significance, namely: two pierced Yshaped timbers, perhaps remnants of log ladders; fragments of squared posts, with rectangular slots cut through them, which may have functioned as fence posts; half of a circular wooden quern base or fruit press; and, the fixed axle from a wheeled vehicle. The latter, carved from a single length of alder, is perhaps the only, and certainly the most complete, surviving example of a fixed axle from the British Isles. Samples of wood from the well-lining were submitted for dating, and though dendrochronological analysis was unsuccessful, radiocarbon dating provided a likely date-range in the 1st or 2nd centuries BC for most of the sampled timbers; some or all of the timbers may have been reused at a later date, however, as demonstrated by the dating of two pine stakes - clearly sourced from very old surviving timber - to the 3rd and 4th millennia cal BC.
- 2.3.6 In Phase 2, the principal settlement enclosure established in Phase 1 was largely redefined by substantial boundary ditches, assumed to have almost entirely removed their predecessors, the new enclosure being larger and extending over the Phase 1 trackway, clearly marking its disuse. Despite this continuity of boundaries, it is likely that all Phase 1 buildings and structures had fallen out of use by the time the enclosure was remodelled and dating evidence suggests that Phase 2 activity extended from some time in the 2nd century AD into the 3rd century AD. The enclosed area was split into two parts, and the slightly larger northern part was further subdivided by a sequence of linear features forming compartments on its western side. There were no contemporaneous structures and only a couple of small pits, one containing fire-cracked stone, were present. It is likely that the enclosure, with its subdivided interior, was used for the penning of livestock. Outside the enclosure,

directly adjoining its eastern side, a small rectangular ditched compartment contained a few pits, one deep enough to have been for water collection, and like the main enclosure, this compartment was probably involved in the containment of animals. North of the enclosure, while the timber-lined well was no longer in use, a couple of pits lying a short distance to the west may represent further attempts at smaller-scale water collection, and to the west, cutting into the Phase 1 trackway ditch, a large deep pit had also very likely been dug for water collection.

- 2.3.7 Phase 3 activity, assumed to be of later 3rd- or 4th-century date, largely took place within the area of the former Phase 2 enclosure or just outside. The enclosure interior appears to have been sub-divided into long narrow strips and/or triangular compartments running at an angle across it, the function of which may have been the containment of livestock, and a large water-collection pit also lay in the interior. Divisions which ran perpendicular to the earlier enclosure may have closed off its southern end and helped define a roughly rectangular compartment on its eastern side.
- 2.3.8 Medieval (Phase 4) and post-medieval (Phase 5) activity were represented by isolated features, including a large former retting pond and several pits, while modern activity (Phase 6), was represented by animal burrows and 19th- and 20th-century field boundaries and drains.

2.4 Mitigation strategy

- 2.4.1 For extraction to proceed as proposed in the planned extensions, a mitigation strategy was formulated to enable the proper investigation and recording of archaeological remains to take place in advance of, or during, extraction, where their preservation was not possible. The WSI (Steedman 2015) set out the strategy and methodologies to accomplish it, though principal elements of the strategy are outlined below.
- 2.4.2 Evaluation made it possible, through combination of the results of the geophysical survey and trial excavation, to define indicative areas of high archaeological potential where, if extraction is permitted to proceed, detailed archaeological investigation, followed by analysis and publication, would need to take place, effectively ensuring the 'preservation by record' of the affected archaeological remains. The investigations would involve a 'strip, map and record' exercise, with careful soil stripping under archaeological supervision and monitoring, the stripped surfaces being cleaned by hand where archaeological features were identified, and the features then being recorded in plan, described, photographed and sample excavated.
- 2.4.3 The limits of the areas of high significance as initially defined were indicative only, however, and in the end, it was found that early settlement features continued outside of these areas, with the working areas in the Western

Extension being extended across parts of Extraction Phase 5 and Phases 7 to 11, to permit an appropriate level of recording of such features.

2.4.4 In the current work (September 2023), the remainder of Extraction Phase 11 was subject to the same strip, map and record strategy applied previously in areas to the north.

3 THE EXCAVATIONS

3.1 Methodology

- 3.1.1 The archaeological recording work was carried out during September 2023by a single member of staff from HFA. The area investigated comprised the majority of Extraction Phase 11, a smaller northern part of the phase having been investigated previously in 2021 (see Fig. 2 and Jobling 2022). In accordance with the written scheme of investigation for archaeological excavation and recording (Steedman 2015), the scheme of works comprised the monitoring of the stripping of overlying soils over the area, followed by the detailed cleaning, examination, surveying and planning of archaeological features, which were then subject to investigation through sample hand-excavation in order to better understand their form and allow informed interpretation of their function.
- 3.1.2 Standard Humber Field Archaeology recording procedures were used throughout; each identified feature was allocated a context number, with written descriptions recorded on pro forma sheets. Plans and sections were drawn to scale on pre-printed permatrace sheets. A high resolution digital photographic record was maintained. The locations of excavation areas and the plans and levels of features were surveyed relative to the Ordnance Survey National Grid and Ordnance Datum respectively, using survey-grade GPS equipment.
- 3.1.3 Finds encountered were recorded to professional standards using recognised procedures and numbering systems compatible with the accessioning system employed by the recipient museums service. Finds recovered from each feature were labelled accordingly, with those of individual interest, other than pottery or animal bone, being allocated Recorded Find (RF) numbers.
- 3.1.4 Soil samples were taken from features or deposits deemed likely to have palaeoenvironmental potential.

3.2 Results

3.2.1 For the purposes of description and discussion of the results of the investigations and assessment of the structural sequence and excavated finds and samples, all features and deposits encountered are assigned where possible to phases of archaeological activity established through artefactual dating evidence and examination of the stratigraphic sequence. The archaeological recording carried out in Extraction Phase 11 in 2023 is a continuation of the work previously carried out in the Western Extension directly to the north, so the same phasing structure (Jobling 2022) will be used, as follows:

Phase 1 – Late Iron Age/early Roman (1st century BC to ?early 2nd century AD)

Phase 2 – Early Roman (2nd to 3rd centuries AD)
Phase 3 – Roman (?later 3rd/4th centuries AD)
Phase 4 – Medieval
Phase 5 – Post-medieval
Phase 6 – Modern

- 3.2.2 It is unlikely that activity of all the above phases would have been represented during the current work in Extraction Phase 11; most features were attributed to Phase 1, though there is doubt about the date of a small group of kiln/oven features close to the southern end of the investigated area, which, without dating evidence currently, could belong to any Phase from 1 to 4.
- 3.2.3 Context numbers allocated to archaeological deposits and features are referred to in the text below and Figures 1-5 show them as recorded in plan and in section. A selection of photographs has also been included (Plates 1-13).

Phase 1 – Late Iron Age/early Roman *Figs 2 and 4; Plates 5-11*

- 3.2.4 Activity in this phase was represented by a series of long rectangular ditched enclosures indicative of a former field system. Extrapolation of these features showed that they represented southern continuations of similar linear ditched features recorded previously to the north (Jobling 2022).
- 3.2.5 On the eastern side of the investigated area, 45m in from the eastern excavation edge, a long linear ditch 13016=13022, aligned NE/SW, ran the full width of the area for a distance of 120m. The ditch was 0.81m wide and 0.25mm deep, with a rounded concave profile (see Fig. 4, S.7), and contained a single mid grey silty sand fill (13015=13021). The ditch was sectioned in two places along its length, with fire-cracked stone and Roman amphora sherds retrieved from the excavated fill (13021) of the northern section and fire-cracked stone and a sherd of medieval pottery, probably intrusive, retrieved from the southern section (fill 13015). 13016=13022 was seen to join in plan with a similar feature (6038) recorded previously to the north, which had branched off a NW/SE trackway ditch at the southern extent of the previous investigation area.
- 3.2.6 A few metres east of 13016=13022, on the same alignment, lay ditch (13020) with a parallel narrower gully (13018) cut into its western edge (see Fig. 4, S.5). Ditch 13020 was 0.90m wide and 0.31m deep containing a single pale grey silty sand fill (13019), while gully 13018 measured 0.40m wide and 0.20m deep and contained a single grey/brown silty sand fill (13017) from which Roman mortaria sherds and medieval pottery sherds were recovered. These two linear features were recorded running for around 30m, though they could not be observed any further north; a period of inclement weather led to this area remaining under water for the remainder of the works, ruling out further investigation of these

features. The parallel nature and proximity of 13016=13022 and 13018/13020 could suggest that they once flanked a narrow trackway.

- 3.2.7 Some 95m further west was NE/SW-aligned ditch 13011, with an observable length of over 100m. The feature was 1.20m wide and 0.45m deep (see Fig. 4, S.9), containing a single mid-grey silty sand fill (13010). Ditch 13011 was a clear continuation of ditch 12028 previously recorded to the north.
- 3.2.8 Ditch 13011 truncated the terminus of NW/SE ditch 13014 (see Fig. 4, S.8), which ran for 32m from the western excavation edge. 13011 was 0.80m wide and 0.29m deep (Fig. 4, S.6) and contained a single fill (13013) of mid-grey /brown silty sand from which were recovered fragments of iron slag and fire-cracked stone, as well as a small sherd of medieval pottery from the surface of the ditch, deemed likely to be intrusive. This linear feature may represent a sub-division within a larger enclosure.
- 3.2.9 A further NE/SW-aligned linear ditch was recorded approximately 20m from the western excavation edge. Ditch 13024 measured 30m in length, was 1.35m wide and 0.45m deep (Fig. 4, S.1), containing a single fill (13023) of mid to dark silty sand. Charcoal flecks and fire-cracked stone were observed within the fill, with Roman and medieval pottery sherds being retrieved from the surface of the feature. Ditch 13024 lay 67m west of enclosure ditch 13011 and probably represented the western return of a long rectangular enclosure, the continuation of which was seen in the area investigated previously to the north. The line of ditch 13024 could be extrapolated north to continue ditch 12030 recorded previously, while its extrapolation southwards would have met with roughly perpendicular ditch 13014 approximately 20m beyond the western excavation limit.
- 3.2.10 It is worth noting that a continuation of the NW/SE-aligned trackway ditch 6123, previously recorded in the north-eastern corner of Extraction Phase 11, was not observed during stripping of soil during the 2023 fieldwork. The area was subject to surface flooding during September 2023, hampering observance of the stripped area, though the feature must have been particularly shallow and ephemeral in this area. A trial trench excavated during the previous work with the purpose of intercepting the continuation of the trackway ditch recorded an elongated pit considered at the time to be of medieval date, given that both Roman and medieval pottery were present in its fill. It is possible, however, that the pit represented a deeper surviving terminus of the Phase 1 ditch, the more recent 2023 work having shown an increased incidence of the site, in marked contrast to the situation observed further north in the same features.

Phase 1 to Phase 4? - Late Iron Age/early Roman to medieval

Figs 3-5; Plates 3 and 4

- 3.2.11 A pair of probable oven/kiln-type bases, NW/SE-aligned, were recorded 6m from the southern excavation edge and 25m from the western excavation edge. An associated pit, probably used for raking out the features, lay immediately to the north-west.
- 3.2.12 Deposit 13002, sub-rectangular in shape, consisted of a clay layer 1.60m in length, 1m wide and 0.20m thick, set in a cut (13008) in the natural subsoil. Evidence of firing at high temperatures was apparent, with charcoal staining throughout the fired clay upper surface. It is likely to represent the clay base of an above-ground oven or kiln.
- 3.2.13 A similar feature lay 0.50m to the north. Deposit 13003, also sub-rectangular in shape, measured 1.30m in length, 0.80m wide and 0.20m thick, set into the natural subsoil (cut 13007), with a fired upper surface. A longitudinal section (Fig. 4, S.3) was cut through the clay, revealing a secondary fired clay surface halfway down in profile, providing evidence for secondary use of the structure.
- 3.2.14 Directly to the north-west of clay bases 13002 and 13003 was a sub-oval pit (13006), 2.60m in length, 1.50m wide and 0.20m deep, perhaps a raking pit for use of the kilns/ovens. It contained two distinct fills: a lower fill of pale grey silty sand (13005), perhaps windblown; and, an upper fill (13004) consisting of a deposit rich in charcoal and fired clay, material derived from use of the structures and/or their disuse. No evidence of a flue or flues leading from the structures to the pit were observed or recorded.
- 3.2.15 The dating and function of these features is currently unknown, Three iron nails (RFs 1-3) recovered from upper fill 13004 of the possible raking pit 13006 may have peen part an associated structure or may have derived from scrap wood burnt in the kilns/ovens; they are not sufficiently diagnostic, however, to be assigned to a particular chronological period. Similarly the fired clay recovered from the same fill is not chronologically diagnostic. Until further dating evidence is available, such as might come from radiocarbon dating of the charcoal, the features may belong to any Phase between 1 and 4.
- 3.2.16 A sample of fill 13004 was submitted for palaeoenvironmental assessment and was found to contain oak, willow and elm charcoal derived from burning of wood, though nothing to suggest the nature of the industrial activity taking place.

Phase 4 – Medieval

3.2.17 Several medieval pottery sherds were retrieved unstratified from the stripped surface across the site and others came from the fills of Phase 1 features,

presumed to have been introduced through disturbance caused by the insertion of land-drains (see below). Together these could indicate medieval activity within or near the investigated area.

Phases 5 and 6 – Post Medieval/Modern

- 3.2.18 Post-medieval/modern activity was represented by a series of up to seventy NE/SW-aligned ceramic land-drains. These features crossed the entirety of the excavation area showing that a concerted attempt had been made to drain this area of land in order to improve agricultural output. It is likely that the amount of disturbance created by insertion of the land drains had impacted earlier features, potentially introducing intrusive later material.
- 3.2.19 A considerable amount of unstratified Roman, medieval and post-medieval pottery sherds was also recovered across the freshly stripped surface.
- 3.2.20 A dark brown loamy topsoil (13000) was recorded across the site, at a depth of between 0.30 and 0.50m thick.

4 SPECIALIST REPORTS

4.1 Assessment of the pottery

Lisa M. Wastling

INTRODUCTION AND METHODOLOGY

- 4.1.1 A total of 41 sherds of pottery, with a combined weight of 1,520 grams was recovered during the 2023 excavation. The average sherd weight (ASW) was 37 grams.
- 4.1.2 All pottery was divided into fabrics and subsequently quantified by sherd count and weight for each fabric category. This data was added to an access database, which forms the basis for the ceramic data table (Table 1); this ceramic data also forms the principal pottery archive for the site. The fabric codes used can be seen in the caption to Table 1.

FABRIC CODES AND TERMINOLOGY

- 4.1.3 In the aim of consistency, the fabric terminology employed for the pre-medieval material for this assessment follows that previously used by Didsbury for all previous excavation at Hemingbrough Clay Quarry. Codes used are alphanumeric codes and mostly generic, in that it they refer to broad categories of material. Roman and later material is coded according to overall class of ware, such as Roman amphorae and Roman greyware or to named types or fabrics, such as Crambeck Parchment Ware. As the pre-medieval pottery of this excavation consists in the main of small sherds, residual and unstratified material, it should be recognised that generic codes are suited to this level of preliminary assessment.
- 4.1.4 For the post-Roman material the type series and codes used were based on those devised by Watkins for the High Street and Blackfriargate sites in Hull (Watkins 1987, 53-181), with subsequent amendments by Watkins, Didsbury and the author. The medieval fabric names are either those in common usage or are self-explanatory.
- 4.1.5 The gritty wares have followed the classification used at Lurk Lane, Beverley (Watkins 1991, 87), whereby the white and buff wares have been designated Pimply Ware and red and pink vessels as York type G. This is in order to differentiate between possible production centres, although these are not presently known with certainty and the division is somewhat arbitrary.

DISCUSSION BY FEATURE

4.1.6 13013 – fill of ditch terminus 13014 The only pottery recovered from the ditch terminus was a small rim sherd of a gritty ware cookpot, with out-turned rim. This has a red external surfaces and a grey core. Due to the external colouring this sherd has been classified as YorkG ware. Gritty fabrics are most common

in 12th-century contexts though they generally have a range of the late 11th to early 13th century.

- 4.1.7 13015 fill of ditch 13016 This ditch contained a crisp unabraded gritty ware cookpot rim likely 12th-century date, in Pimply ware and a single sherd of a very abraded orangeware with a relatively thick suspension glaze, which post-dates the gritty ware. This is soft-fired, bright orange and is possibly a Beverley Ware of 2C fabric of the 14th century (cf. Didsbury and Watkins 1992, 108).
- 4.1.8 13019 fill of ditch 13020 This ditch contained four sherds of a single mortarium, which was very abraded and demineralised. One sherd was the result of a fresh break. Other pottery was an unusual squat dish of an unidentified medieval fabric, wider at the base than the rim similar to the lid-seated 'peat pot' form of Staxton/ Potter Brompton ware (STXPB). The fabric is however not STXPB and has more affinities with the sandy very hard-fired wares of the Saxo-Norman period such as Thetford types, although the sand in the vessel from Hemingbrough is finer. The form of the vessel suggests that it is of the late 11th or 12th century.
- 4.1.9 *13021 fill of ditch 13022* Three sherds were recovered from this ditch. All were Roman amphora sherds, consisting of a handle fragment and two body sherds. These derived from more than one vessel, with two being the minimum number represented. The handle is a thick rod type and the fabric possibly suggests that it belonged to a Dressel 20 amphora, a long-lived type with a wide date range.
- 4.1.10 *13023 fill of ditch 13024* This ditch, in common with 13020, contained material of Roman date, in conjunction with medieval pottery. The Roman sherd was from a greyware jar with burnished wavy line decoration and the medieval sherd was a fine sandy ware *sensu* Hayfield (1985, 347).

UNSTRATIFIED POTTERY

- 4.1.11 Twenty-seven sherds of unstratified pottery weighing a total of 959 grams were recovered from the topsoil of the field. The earliest pottery from this small assemblage had a similar composition to the pottery from the features, comprising both Roman and medieval pottery of 12th-century date alongside some medieval and later pottery.
- 4.1.12 The Roman pottery indicates that there were probably plough-disturbed features of the later third- to later fourth-century within the vicinity, as Crambeck Parchment Ware and calcite-tempered Huntcliff Ware lid-seated jar sherds are present. The Huntcliff Ware sherds are relatively large and unabraded suggesting that this has been comparatively recently re-deposited within the topsoil layer. Huntcliff Ware is considered to have date from the mid-4th century, until the end of the Roman period and have generally been thought to post-date 360 AD (Monaghan 1997, 866). A very small and abraded amphora handle sherd was also retrieved from the topsoil. This was a different type to

those mentioned above and had a greenish-buff surface skin with embedded black grains, although this sherd is so abraded that the original surface is visible only at two tiny areas either side of the handle.

4.1.13 Post-medieval pottery probably derived from the manuring of fields and consists of material from the 16th to the 19th centuries, none of which is of intrinsic interest.

SUMMARY: CONCLUSIONS AND RECOMMENDATIONS

- 4.1.14 Ditch fill 13021 of ditch 13022 contained only amphora sherds, whereas the other ditches contained a combination of Roman and medieval material.
- 4.1.15 Roman pottery from the 2023 fieldwork consists of a range of material comparable to that excavated from the eastern area of the quarry excavated in 2015 (site code: HCQ 2015), although most was recovered from the topsoil and unstratified. Represented are sherds of local greyware, mortaria sherds with finewares consisting of Colour-coated Ware, and Crambeck Parchment Ware of the late 3rd to 4th century. The latest Roman pottery is Huntcliff Ware of the mid 4th century onwards. Late Roman Crambeck Ware (greyware) and Huntcliff Ware were present at Hemingbrough Clay Quarry Eastern Area (Didsbury 2021).
- 4.1.16 The 12th-century gritty wares (PIMP and YORG) are relatively unabraded. This may be due to the disturbance of earlier medieval features within the field during ditch maintenance and re-cutting, with the other material having been in the topsoil for longer, or it may be that the grittyware is more robust due to being harder-fired. Some of the medieval also possibly from derives from field manuring, or possible movement of soils containing disturbed medieval material, as this is may have occurred at the site.
- 4.1.17 Although this small assemblage is not worthy of publication in its own right, it is recommended that the amphora sherds from the fill of 13022 have specialist identification in order that the whole range of amphora from the site can be established in advance of any selective publication.

Fabric code	Common name	Remarks
BLAK	Blackware	
CRAP	Crambeck parchment ware	
FSAN	Fine sandy ware	Medieval finewares in the regional 'Fine Sandy' potting tradition, <i>sensu</i> Hayfield 1985
HC	Huntcliff Ware	
HUM1	West Cowick type Humberware	
HUM4	Purple-glazed Humberware	
HUM5	Late or post-medieval	
	Humberware	
LBLAK	Late Blackware	
NYOR	Brandsby-type ware	

Table 1: pottery quantification

Fabric codes used in the database:

Fabric code	Common name	Remarks
ORNG	Orangeware	Unattributed wares in the medieval orangeware tradition
PIMP	Pimply ware	Gritty ware, white or buff
RA	Roman amphora	
RCC	Roman colour-coated wares	
RG	Roman greyware	
RM	Roman mortarium	
STAMT	Stamford-type ware	
TASW	Toynton-All-Saints ware	
TPWW	Transfer-printed whiteware	
UMED	Unattributed medieval fabrics	
YORG	York G ware	Gritty ware, pink, orange or red

Context	Fabric	Quantity	Weight (g)	Remarks
0	LBLAK	1	50	dish rim
0	RCC	1	1	orng fabric, black ext cc, int red, rouletted
0	RM	1	20	base sherd, orng sandy fabric, black grits
0	RA	1	58	handle frag, sandy, occ mica sparse red & black stone
				inclusions, mostly orange, with grey core & buff to green
				external surfaces with adhering black grains
0	PIMP	3	48	2 square cpot rims, 1 small thin-walled cpot out-turned rim
0	YORG	1	30	cpot square rim
0	NYOR	1	72	jug base, double thumb
0	HUM1	3	232	lower handle attachment of large jug, 2 base sherds
0	TASW	2	71	jug handle and body sherd with applied scale
0	STAMT	1	7	crazed glaze with Cu spots, cf developed STAM, abraded
0	HUM4	1	33	base with int glaze
0	HC	2	171	rim & upper body of 1 jar, rim of another Mid C4th onwards
0	BLAK	2	55	2 bases
0	CRAP	1	22	sherd from neck/ shoulder of wide-mouthed bowl Late C3rd-4th
0	TPWW	3	12	floral flow blue TP
0	RG	2	23	jar sherd with 2 horizonal incised bands above a zone
				with burnished wavy line décor, small bowl rim, burnt &
				with int residue
0	HUM5	1	54	base with int glaze
13013	YORG	1	4	out-turned rim, red exterior, grey core cf YorkG
13015	PIMP	1	21	square cpot rim, buff to pink, residual?
13015	ORNG	1	13	handle sherd, v abraded, 2 tiny extant patches of a
				green suspension glaze, bright orng & soft poss BEV2C
13019	RM	4	30	buff fabric, white quartz & grey flint trituration grits,
			10	abraded and demineralised, all from same vessel
13019	UMED	1	43	flat-topped rim, full profile of squat 'peat-pot' or dish type
				shape, externally-ridged, ext sooted, unusual vessel late
				C 11th or early C12th hard fired, red-brown sandy fabric
				with some mica, with grey core and dark brown to dark
				grey exterior, too line to be Tork, nin form found on
				STA/PB also cools from Norrolk eg N. Elmham &
12021	D۸	2	/12	from thick rod amphore handle non hifid 2 of Dressel 20
13021	n A	3	413	nay mick fou amphora handle hon-binu (c) DIESSEI 20
				2 body sherds one hale orange to buff guartz sand occ
				black grains & mica, abundant black volcanic grains on

Context	Fabric	Quantity	Weight (g)	Remarks
				exterior, the other pale orange exterior, rest pale grey, quartz sand & occ red grains
13023	RG	1	7	abraded
13023	FSAN	2	30	one with splashes & runs of glaze, one with green suspension glaze, both slightly abraded
Total		41	1520	

4.2 Assessment of the Recorded Finds

Pamela M. Cartwright

AIMS AND OBJECTIVES

- 4.2.1 The following report will assess the potential of the recorded finds assemblage from the excavation for further analysis.
- 4.2.2 The format of the report is designed to comply with current standards and guidance for best practice in the production of archaeological artefact assessments.

INTRODUCTION AND METHODOLOGY

- 4.2.3 All artefacts were recorded using the Humber Field Archaeology pro-forma finds record sheets. Data obtained from the pro-forma sheets was used to create access databases.
- 4.2.4 Objects were packaged appropriately for long term storage, in accordance with conservation and museum guidelines.
- 4.2.5 The iron objects were x-radiographed and were assessed for their conservation needs by the Conservation Laboratory of York Archaeological Trust (see 4.4 below).

QUANTIFICATION OF RECORDED FINDS BY MATERIAL AND FUNCTION

4.2.6 Three recorded finds numbers were allocated during the excavation. All objects were of iron.

Function	Interpretation	Quantity
Structural	Nail	3
Total		3

DISCUSSION

Iron – 3 objects

- 4.2.7 The three iron nails were recovered from the fill of a raking pit beside the fired clay surfaces or ovens. These could potentially have been from the superstructure or from within the ashy remains of the wood used as fuel to heat the oven. No further work is recommended on the nails.
- 4.2.8 The objects should be packaged appropriately for long-term storage and submitted to the relevant museum with the rest of the archive, should they not be required for return to the landowner.

4.3 Assessment of the bulk finds

Pamela M. Cartwright

AIMS AND OBJECTIVES

4.3.1 The following report will assess the potential of the assemblage from the excavation for further analysis. The format of the report is designed to comply with current standards and guidance for best practice in the production of archaeological artefact assessments.

INTRODUCTION AND METHODOLOGY

4.3.2 All artefacts from HCQ 2023 were recorded using the Humber Field Archaeology pro-forma 'Bulk finds' sheets and 'Context finds' sheets. Objects were packaged appropriately for long term storage, in accordance with conservation and museum guidelines.

FIRED CLAY

4.3.3 A total of 66 fragments of fired clay were collected from upper fill 13004 of raking pit 13006, weighing 1877g. These fragments resemble the pieces from the two intact clay surfaces which abut the pit. These have been interpreted as oven/kiln bases. The fragments display a variety of colour from contact with heat, from a buff grey colour to pink and red. Three fragments show blackening from smoke or burning, with one having ash and charcoal adhesions. The fabric consists primarily of clay dug from the underlying geology, just below the topsoil. There are very few inclusions, but those present consist of a little sand and occasional burnt vegetable matter such as grass or chaff.

Table 2: fired clay

Context	Quantity	Weight(g)	Comments
13004	38	1355	Fragments with at least one smoothed/ worked
			surface
	25	390	Non diagnostic fragments
	3	132	Fragments with smoothing scraped lines
Total	66	1877	

BURNT STONE

4.3.4 Six fragments of burnt stone were collected weighing a total of 987 grams. They all came from the fills of shallow ditches which cross the area. 13013 and 13015 contained medieval pottery and 13021 had Roman amphora fragments (see pottery report, section 4.1). Burnt and fire cracked stones are not dateable by themselves and have been used as bases for hearths and for heating food and drink for millennia.

Table 3: burnt stone

Context	Quantity	Weight(g)	Comments
13013	2	230	Sandstone glacial erratic
13015	3	620	Sandstone glacial erratic

Context	Quantity	Weight(g)	Comments
13021	1	137	Glacial erratic
Total	6	987	

INDUSTRIAL RESIDUE

- 4.3.5 Two fragments of tap slag were recovered from context 13013, the fill of ditch 13014, weighing 355 grams.
- 4.3.6 Tap slag is the residue which is run off when separated from the iron in the ore smelting process. The presence of this residue suggests the smelting of iron somewhere in the near locality. Pottery from the surface of this feature dating from the late 11th to the early 13th century was deemed intrusive, suggesting that the tap slag may have derived from either Roman or medieval activity.

Table 4: industrial residue

Context	Quantity	Weight(g)	Comments
13013	2	355	Tap slag
Total	2	355	

ASSESSMENT OF POTENTIAL AND RECOMMENDATIONS

- 4.3.7 This small assemblage has little potential for further work, though it adds to the assemblage of material from excavations at the site.
- 4.3.8 The industrial residue may be needed in the event of further work on the site, and further work may identify whether the fired clay bases represent domestic ovens or structures associated with metalworking or other use. It is recommended that the slag is retained for the present.
- 4.3.9 As the fired clay is from a potential oven this should also be retained for the present, though a selective discard may be implemented on the non-diagnostic fragments.
- 4.3.10 No further work is required on the burnt stone, and this may be discarded.

4.4 Conservation assessment

S. Crow (York Archaeology)

AIMS AND OBJECTIVES

- 4.4.1 This report (extracted from YA Report No. 2024/005) aims to form the conservation component of the post-excavation assessment, as laid out in the Chartered Institute for Archaeologist's 'Standard and guidance for the collection, documentation, conservation and research of archaeological materials' (ClfA, 2020). This has involved X-radiography, identification of materials contained within the assemblage and an assessment of their condition. The stability of the various classes of materials is summarised and recommendations made for further investigative conservation and long-term storage.
- 4.4.2 This conservation assessment does not seek to identify function, form, date, method of manufacture, source, parallels or the attributes of artefacts. Finds specialists should be consulted where possible so that the potential of the assemblage can be quantified within the context of the wider post-excavation assessment.

METHODOLOGY

- 4.4.3 The three iron small finds were X-radiographed using standard YA procedures and equipment. One plate was used and given a reference number in the YA conservation laboratory series (X10080). The X-ray number was clearly marked on the object's packaging and each image on the radiograph was labelled with its find number. The plate was packaged in an archival paper pocket; suitable for long-term storage.
- *4.4.4* All small finds were examined under a binocular microscope at x20 magnification. The material identifications were checked, with observations made about the condition and stability of the finds.

CONDITION ASSESSMENT SUMMARY

4.4.5 The iron is in a fair condition. All objects are encased in a large volume of substrate and corrosion products, obscuring the form, but are otherwise stable. X-rays showed the metal cores to be patchy and mineralised but not yet voided. Store dry below 15%RH.

RECOMMENDATIONS

Further investigative conservation

4.4.6 Partial conservation is **not** recommended for any of the artefacts to aid identification and clarification.

Packaging and long-term storage

4.4.7 When received in the conservation laboratory, the finds had been individually packed in perforated re-sealable sample bags with JiffyFoam[™] inserts and

packed together in a storage box with silica gel. An RH strip was added to monitor the environment.

Table 5: iron objects

X-Ray	Context No.	RF No.	Description
X10080	13004	1	Labelled as 'object/nail'. Suspected nail. Encased in a layer of substrate and orange corrosion products. Charcoal observed in substrate. No evidence of cracking, loss or active corrosion. Object is stable. <u>X-radiography</u> shows the metal core to be patchy and mineralised. Recommendation: no further work required. Store dry.
X10080	13004	2	Labelled as 'nail'. Complete bent nail. Encased in a layer of substrate and yellow/orange corrosion products. No evidence of cracking, loss or active corrosion. Object is stable. <u>X-radiography</u> shows the metal core to be patchy and mineralised. Recommendation: no further work required. Store dry.
X10080	13004	3	Two fragments. Suspected nail shank and fragment of corrosion. Encased in a layer of substrate and yellow/orange corrosion products. Charcoal observed in substrate. No evidence of cracking, loss or active corrosion. Object is stable. <u>X-radiography</u> shows the metal core to be patchy and mineralised. Recommendation: no further work required. Store dry.

4.5 Assessment of the environmental samples

Stacey Adams (York Archaeology)

INTRODUCTION AND METHODOLOGY

4.5.1 A 15-litre bulk environmental sample was taken from fill 13004 of possible kiln/oven raking pit [13006] during archaeological investigations at Hemingborough. The sample was processed by flotation using a 500µm mesh for the heavy residue and a 250µm mesh for the retention of the flot before being air dried. The heavy residue was sorted by hand for archaeological remains and a magnet ran over the residue to retrieve magnetic material and potential metalworking remains. whilst a 100ml subsample of the flot was scanned under a stereozoom microscope at 7-45x magnifications and its contents recorded (Table 6). Ten charcoal fragments were fractured by hand along three planes (transverse, radial and tangential) according to standardised procedures (Gale & Cutler, 2000; Hather, 2000). Specimens were viewed under a stereozoom microscope for initial grouping, and an incident light microscope at magnifications up to 400x to facilitate identification of the woody taxa present. Taxonomic identifications were assigned by comparing suites of anatomical characteristics visible with those documented in reference atlases (Schoch et al, 2004; Hather, 2000; Schweingruber, 1990). Nomenclature follows Stace (1997) and identifications are recorded in Table 6.

RESULTS

- 4.5.2 The heavy residue from raking pit [13006] contained frequent fired clay weighing 487g in total along with abundant charcoal fragments weighing 24g. The flot similarly contained abundant charcoal fragments and frequent fired clay. No charred plant macrofossils were identified within the sample.
- 4.5.3 The moderately well-preserved charcoal in raking pit [13006] was affected by post-depositional sediment embedding the fragments which is associated with fluctuations in the water table after burial. A single fragment displayed radial cracks associated with the burning of fresh or damp wood (Fiorentino and D'Oronzo 2010). Oak (*Quercus* sp.) was the most dominant taxon accompanied by poplar/ willow (*Populus/ Salix*) and elm (*Ulmus* sp.). The charcoal all derived from the burning of large branch or trunk wood.

SIGNIFICANCE AND POTENTIAL

4.5.4 The charcoal within raking pit [13006] likely represents the in situ burning of wood associated with the oven/ kilns and provide direct evidence of industrial activity. Oak would have been available in the local landscape whilst poplar/ willow would have been widely available along the banks of the River Ouse. Elm, abundant in the north of England, was often subjected to pollarding (Taylor 1981: 49). Pollarding involves the removal of the upper branches of a tree to

ensure the regrowth of dense foliage in order to provide a steady supply of fuelwood, although elm is often considered an inferior fuel (Edlin 1949).

4.5.5 The charcoal from raking pit has the potential to inform on fuel selection and use at Hemingborough and possible woodland management strategies. Elm is a relatively short-lived taxon and would be suitable for submission for c14 dating if absolute dates are required for the feature.

FURTHER WORK AND RECOMMENDATIONS

4.5.6 No further work is recommended on the flot from Hemingborough due to the absence of charred plant macrofossils. The charcoal has the potential to inform on fuel selection and use as well as woodland management and is recommended for full analysis. One hundred charcoal fragments from the sample should be submitted for identification based on the minimum number of fragments principle for temperate regions proposed by Asouti & Austin (2005). A subsequent analysis report should be produced to interpret and contextualise the data and compare it to contemporary oven/ kiln charcoal deposits within the region.

Table 6: Flot assessment and charcoal identifications from the bulk environmental sample of 13004

Sample Number	Context	Context/ Deposit Type and Parent Context	Sample Volume (L)	Flot Weight (g)	Flot Volume (ml)	Volume Scanned (ml)	Uncharred (%)	Sediment (%)	Charcoal >4mm	Charcoal 2-4mm	Charcoal ≺2mm	Charcoal Identifications	Preservation	Fired Clay
<1>	(13004)	Raking Pit [13006]	15	275	400	100	5	5	***	****	****	Quercus sp. (4) [ARN:4, PDS:2, RC:1] <i>Populus/</i> <i>Salix</i> (3) [ARN:6, PDS:1] <i>Ulmus</i> sp. (3) [ARN:3]	++	***

Quantification: * = 1-10, ** = 11-50, *** = 51-150, **** = 151-250, ***** = >250. Preservation: + = poor, ++ = moderate, +++ = good.

Key: ARN = average ring number, PDS = post-depositional sediment, RC = radial cracks.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Discussion of the results

- 5.1.1 The programme of archaeological investigation in Extraction Phase 11 prior to quarrying recorded activity covering a period of time from the Iron Age up to the modern period.
- 5.1.2 The earliest activity, of Iron Age and/or early Roman date, comprised a series of linear ditches representing the boundaries or sub-divisions of long narrow enclosures most likely created for the corralling of domesticated livestock. The linear features contained sherds of Roman pottery, as well as later, medieval, pieces assumed to have been introduced as a result of later agricultural activity.
- 5.1.3 These features were continuations of features recorded to the north during previous phases of archaeological investigation in the Western Extension of the quarry (see Jobling 2022), running south from a NW/SE-aligned ditched trackway. The course of the River Ouse at the time would have lain much further north than it does now, and it may be that these enclosures would once have run down to the edge of the river's floodplain.
- 5.1.4 At the southern end of the investigated area were recorded two adjacent kiln or oven bases of burnt and/or fired clay set into the natural subsoil, with an associated adjacent pit containing charcoal and fired clay in its upper fill. Three iron nails and fragments of fired clay were recovered from the pit, though nothing which provides clear dating evidence or indications of what industrial process may have taken place. Without dating evidence, these features could range in date from the Iron Age to the medieval period; the future submission of a sample of charcoal from the fill for radiocarbon dating should help refine this.
- 5.1.5 Pottery sherds of Roman and medieval date were recovered as unstratified finds during topsoil stripping. Unusually, the assemblage included later Roman pottery types, which were more similar in date to that found in the settlement features recorded in the Eastern Extension investigations (Jobling 2021), rather than those recovered from the settlement excavated just to the north in the Western Extension (Jobling 2022); this could suggest later Roman settlement in the vicinity or the material may have been brought to the site in imported soils. Similarly the unstratified medieval pottery and the fragments found as intrusive finds in earlier features could signal nearby activity of medieval date or importation of material from elsewhere, subsequently being dispersed though agricultural processes (such as the insertion of land-drains).
- 5.1.6 Post-medieval/modern land-drainage in this area was intensive, with between sixty and seventy drains observed crossing the site at regularly-spaced intervals of three to five metres. The concentration of drainage features

observed shows that the land remained poorly drained, even in the modern period, despite the course of the River Ouse now lying markedly further south.

5.2 Recommendations

- 5.2.1 The following recommendations are the opinion of HFA and may not necessarily reflect the views of North Yorkshire County Council Historic Environment Team.
- 5.2.2 The archaeological investigations carried out by HFA on behalf of Plasmor Ltd in Extraction Phase 11 at Hemingbrough Clay Quarry recorded a sequence of features representing human activity from the Iron Age through to the modern period, thus ensuring the preservation by record of these archaeological remains in advance of clay extraction. The work carried out was in line with conditions 38 to 40 on planning permission (Application no NY/2015/0058/ENV; Decision C8/2015/0280/CPO) granted to Plasmor in March 2016, which required archaeological mitigation fieldwork followed by assessment and a subsequent programme of analyses, publication and archiving.
- 5.2.3 Archaeological mitigation carried out in respect of the planning permission has taken place previously in the Eastern Extension of the quarry, and over the remainder of the Western Extension, both having been the subject of earlier post-excavation assessments (Jobling 2021, 2022). The work in Extraction Phase 11 directly continues that undertaken in the Western Extension, having recorded features which are direct continuation of those recorded further north.
- 5.2.4 Given the nature of the discoveries in both extensions to the quarry (including the recent work in Extraction Phase 11), it is considered appropriate that a programme of analyses and publication should involve presentation of the results of work across the whole quarry, combined in both publication and archive. Accordingly, HFA will produce an Updated Project Design (UPD) setting out in detail recommendations for a proposed programme of analyses, publication and archive, including the planned methods, project team, resources and timetable (with planned publication date) necessary to achieve this. The UPD will be submitted to the County Planning Authority for approval and, as specified in Condition 40 of planning permission, once approval has been given in writing, the programme shall thereafter be carried out in accordance with the details thus approved, and in accordance with a timetable agreed in writing with the County Planning Authority.

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The site recording was undertaken by Stephen Kennedy of HFA and finds processing and finds reporting were by Pamela Cartwright and Lisa Wastling of HFA. In addition, York Archaeology undertook assessment of the finds conservation and environmental samples.

The excavation report text was written by Stephen Kennedy, who also took the photographs reproduced here, while the figures were produced by Douglas Jobling

Administrative support was provided by Georgina Richardson.

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APPENDIX 1 – Context listing

Key for Context Type: LAY = layer; FIL = fill of cut feature; CUT = cut feature; STR = structure/structural element; NAT = natural layer/deposit

Context	Phase	Trench/ Area	Context Type	Fill Of	Interpretation
13000	6	EP11	LAY		Mid- brown loamy topsoil, 0.30 - 0.50m thick
13001	-	EP11	NAT		Orange/brown clayey sand
13002	1-4	EP11	STR		Red/grey/black fired clay base of oven type structure, L-1.60m, W-1m, D-0.20m, southern one of a pair
13003	1-4	EP11	STR		Red/grey/black fired clay base of oven type structure, L-1.30m, W-0.80m, D-0.20m, northern one of a pair
13004	1-4	EP11	FIL	13006	Dark grey/black silty sand with daub and charcoal inclusions, upper fill of raking pit, 0.10m thick
13005	1-4	EP11	FIL		Pale grey silty sand lower fill of raking pit, 0.20m thick
13006	1-4	EP11	CUT		Raking pit at west of oven features, L-2.60m, W-1.50m, D-0.20m
13007	1-4	EP11	STR		Fired clay oven base, northern one of a pair, L- 1.30m, 0.80m, D-0.20m
13008	1-4	EP11	STR		Fired clay oven base, southern one of a pair, L- 1.60m, W-1m, 0.20m
13010	1	EP11	FIL	13011	Mid grey silty sand single fill of ditch, D-0.42m
13011	1	EP11	CUT		NE-SW linear ditch, L- >20m, W-0.60m, D- 0.42m
13012	1	EP11	FIL	13014	Pale grey silty sand single fill, D- 0.18m
13013	1	EP11	FIL	13014	Pale/grey brown silty sand single fill, D- 0.30m
13014	1	EP11	CUT		NW-SE ditch terminus, truncated by 13011, L - 40m, W-0.80m, D - 0.29m
13015	1	EP11	FIL	13016	Mid grey silty sand single fill, D- 0.25m
13016	1	EP11	CUT		SW-NE linear ditch, L- >10m, W-0.82m, D- 0.25m
13017	1	EP11	FIL	13018	Pale grey/brown silty sand single fill, D- 0.13
13018	1	EP11	CUT		SW-NE linear gully cut into northern edge of ditch 13020, L- >10m, W- 0.40m, D-0.13m
13019	1	EP11	FIL	13020	Pale grey silty sand single fill, D-0.31m
13020	1	EP11	CUT		SW-NE linear ditch, L- >20m, W- 0.95m, D- 0.31m
13021	1	EP11	FIL	13022	Mid grey silty sand single fill of ditch, D - 0.26m
13022	1	EP11	CUT		NE-SW linear ditch, L- >30m, W- 1m, D- 0.26m
13023	1	EP11	FIL	13024	Mid- dark grey silty sand single fill, D- 0.45m
13024	1	EP11	CUT		NE- SW linear ditch, L- > 50m, W- 1.40m, D- 0.45m
13025	6	EP11	LAY		Spread of modern material, L- 40m, W- >5m, D-0.10 - 0.30m

APPENDIX 2 – Archive listing

National Grid Reference: SE 6689 3148	Site Code:	HCQ 2023						
Site Address: Extraction Phase 11, Western Extension to Clay Extraction site, on Land at Hemingbrough, Selby District, North Yorkshire								
Museum Reference or Accession Number: TBA								
Planning Reference: NY/2015/0058/ENV								

[Note: the archive for this work will be combined with that of the work carried out in the Eastern and Western Extensions as part of the same planning permission]

Documentary Archive Record								
1. Project summary								
Archive component	Hard Copy	Digital Copy	Notes					
1.1 Site Summary/ Abstract	X	×						
1.2 Archive Index	X	\boxtimes						
1.3 Guide to Elements of the Archaeological Archive								
2. Project Planning								
2.1 Planning Documentation	\boxtimes	\boxtimes						
2.2 Written Scheme of Investigation/ Project Design/ Project Specification	\boxtimes	X						
2.3 Risk Assessment	\mathbf{X}	\boxtimes						
2.4 Correspondence (date order)	\mathbf{X}	\boxtimes						
2.5 Miscellaneous documentation (flow charts, bills, receipts, administration, staffing etc.)								
3. Initial Survey and Documentary Research								
3.1 HER Information								
3.2 Historic Maps								
3.3 Documentary Research	\boxtimes	\boxtimes						
3.4 Desk-Based Assessment								
3.5 Geophysical Survey Report	X							
3.6 Aerial Photographs								

3.7 Other Survey material			
4 Site Fieldwork Data			
4.1 Site notes and diaries			
4.2 Context Index and Context Sheets	\boxtimes		
4.3 Level Books			
4.4 Plan Index and Plans	\boxtimes		
4.5 Section Index and Section Drawings	X	X	
4.6 Survey and Sketch	X	X	
5 Photographic Record:			
5.1 Photographic Site Record Sheets and Catalogues	X	×	
5.2 Photographic Concordance Table (database printout)	X	×	
5.3 Contact Sheets			
5.4 Negatives			
5.5 Colour Transparencies (slides)			
5.6 Prints			
5.7 Digital Images (computer printout)	\boxtimes	X	
6 Post-excavation Fieldwork Data:			
6.1 Matrices and Phasing Information			
6.2 AutoCAD Site Drawings		\boxtimes	
6.3 Site Structural Report Draft			
7 Digital Archive			
7.1 Digital Archive Storage Statement			
7.2 Contents of digital archive			
7.3 CD / DVDs			
7.4 Other Discs			
7.5 Metadata for Digital Record (data about data, eg what the codes mean)			
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8 Material Archive Record			
8.1 Post-excavation Finds Progress Checklist Sheet	\boxtimes		
8.2 Recorded Finds Index and Sheets	X		
8.3 Context Finds Sheets			
8.4 Bulk Finds Sheets			
8.5 Recorded Finds Assessment Draft			
8.6 Recorded Finds Database Copy			
8.7 Recorded Finds Illustrations			
8.8 Bulk Finds Assessment Draft			
8.9 Bulk finds Illustrations			
8.10 Pottery Database Copy		X	
8.11 Spot Dating Record			
8.12 Pottery Assessment Report Draft		×	
8.13 Pottery Illustrations			
8.14 Ceramic Building Materials			
Assessment Draft			
8.15 Industrial Residues Assessment			
8.16 Scientific Analysis and Dating			
Reports			
8.17 Finds Digital Photographs Index			
8.18 Finds Digital Images (computer printout)			
8.19 Box Index			
8.20 Material Archive Rationalisation Sheet			
8.21 Finds Archive Contents Sheet			
9 Conservation Record			
9.1 Conservation Assessment Report			
9.2 X-rays			
9.3 Conservation Record Sheets for			
Individual Objects			
9.4 Further conservation Report			
10 Biological Material Record			
10.1 Sample Index and Sample Sheets	X		
10.2 Biological Material Data			

10.3 Biological Material Assessment Report Draft								
10.4 Animal Bone Assessment (if a separate report)								
10.5 Shell Assessment (if a separate report)								
10.6 Human Bone Data								
10.7 Human Bone Assessment								
11-13 Dissemination								
11. Publicity: Press releases, paper cuttings, recordings of interviews both on the radio and T.V.								
12. Final Assessment Report: The complete Assessment Report. Including illustrations and plates, as sent to the client and Historic Environment Record								
13. Additional Reports: Interim Statements, watching brief report copy, papers and articles written for journals or other publications.								
14 Watching Brief Archive								
14. Watching Brief Archive								
Publication Archive		Did this site proceed assessment?	ed to publication after					

466800m









S.8

13013

| 13014 NW





S.6







scale 1: 20 @ A4

Figure 4 Recorded features in section



Plate 1 – The extraction site prior to topsoil stripping, looking north-west



Plate 2 – Working shot showing topsoil stripping revealing the underlying clayey sand natural substrate, 13001, looking east



Plate 3 – Kiln/oven features 13002 and 13003, pre-excavation, looking north east (1m scale)



Plate 4 – Kiln/oven features 13002 and 13003, showing sectioned raking pit, 13006, looking south-east (1m scale)



Plate 5 – South-east facing section of linear ditch, 13014 (0.5m scale)



Plate 6 – North-east facing section showing SW-NE ditch 13011 truncating terminus of ditch 13014, looking south west (0.5m scale)



Plate 7 – North-facing section of linear ditch, 13016 (1m scale)



Plate 8 – North-facing section of linear ditch, 13022 and gully 13018 (1m scale)



Plate 9 – Wider shot looking south showing N-S linear ditch features 13016, 13018 and 13022 (1m scale)



Plate 10 – South-facing section of linear ditch, 13016 (1m scale)



Plate 11 – South-west facing section of linear ditch, 13024 (1m scale)



Plate 12 – Overall view of site following topsoil stripping, looking west



Plate 13 – Overall view of site following topsoil stripping, looking east

Humber Field Archaeology

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Project Management • Desk-based Assessment • Field Survey • Fieldwork • Finds Research • Post-excavation Analysis • Inter-tidal Work

Humber Field Archaeology is an independently-funded part of the Humber Archaeology Partnership, a partnership serving The East Riding of Yorkshire Council and Kingston upon Hull City Council