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Client: RMC Aggregates (Northern) Ltd
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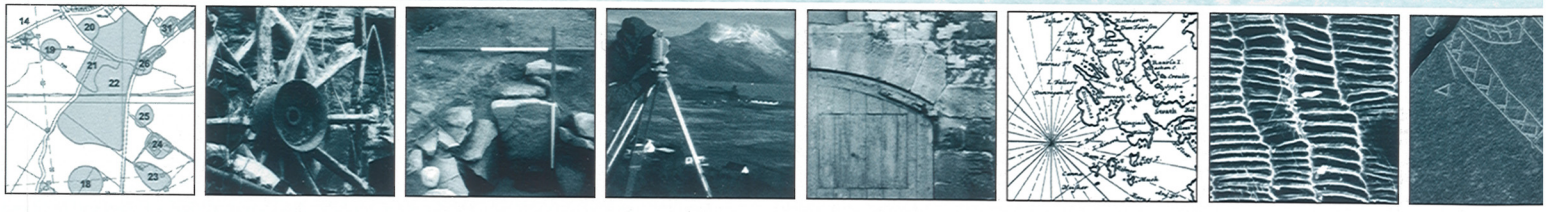

Wooperton Quarry: Phase 2, First strip Assessment Report

Ross Murray

National Grid Reference: NU 049 204

HEADLAND ARCHAEOLOGY Ltd

PROJECT SUMMARY SHEET (WOO97)

Client	RMC Aggregates (Northern) Ltd
National Grid Reference	NU 049 204
Project Manager	Tim Holden
Text	Ross Murray
Illustrations	Ross Murray
Excavation	Kelly Clapperton Magnar Dalland George Geddes Elizabeth Jones Ross Murray
Consulting Specialist	Mhairi Hastie
Schedule	
Fieldwork	August/September 2003
Report	October 2003

Summary

RMC Aggregates (Northern) Ltd began to work a new quarry to the east of Wooperton, Northumberland in May 1997. The site had been identified as of potential archaeological interest by Northumberland County Council and all ground disturbance required archaeological monitoring. Phase one of the topsoil strip revealed a number of prehistoric pits, two cremations and a series of features which are dated, through associated finds, to the 1st Century AD. These included vestiges of a Roman road, a possible building and a variety of boundary features thought to be associated with Roman military settlement on the site.

The first strip of Phase 2 extended to the west of the previous phase of works. No features were encountered in the north part of the strip. This phase revealed a shallow linear feature, which may be contemporary with the boundary features associated with Roman military settlement, evidence of a post-built structure, again of Roman date and a prehistoric pit as well as several features of unknown date and function.

Environmental samples were taken from selected contexts.

Contents

1 INTRODUCTION

1.1 Site location and topography

The site is located 350 m to the east of the village of Wooperton at NGR NU 049 204. The quarry development comprises two fields that cover 26.5 ha and are bounded to the southwest by the A697 and to the southeast by the B6346 and a minor road. There is considerable topographical relief within the site. Where the two fields meet, a comparatively flat and broad ridge runs down aligned northwest to southeast. The ground slopes steeply down towards the A697 to the southwest, dropping 14 m over a distance of 100 m. Phase 2 of the quarry is located to the northwest of Phase 1 at the west edge of the site and was previously under pasture. The geology of the area comprises a deep sequence of glaciofluvial sediments of gravels and sand down to fine sand and silt.

1.2 Area investigated (Figure1)

The previous seasons work (Phase1) investigated an area of some 27500 m² (Dalland 1997a, 1997b, 1998, 2000, Glendinning 1999). The first strip of the second phase, the subject of this report, was roughly 14 m wide and 200 m long giving an approximate area of 2800 m².

1.3 Previous archaeological work

The supposed line of a Roman Road, the *Devil's Causeway* runs across the middle of the extraction area. The line is well established to the north and the south of Wooperton but it has never before been recorded close to the quarry site.

A series of cropmarks has been seen in the southwest parts of the area of the development, some of which may have been caused by human activity in the past. In particular a possible ring ditch in the southern corner of the area was believed to be of considerable interest.

On the basis of these cropmarks the site was the subject of evaluations by Oxford Archaeological Associates (1994) and West Yorkshire Archaeological Services WYAS (1996). The OAA evaluation consisted of geophysical survey and test pitting while the WYAS investigation consisted of trial trenching designed to investigate features identified in the southwest corner by OAA. With the exception of a ditch identified in both evaluations and a hearth identified in the 1994 investigation no archaeological features were identified in the trenching and most of the cropmarks seen previously were therefore attributed to geological processes, mainly ice wedges.

The OAA geophysical survey of the site did not indicate that there would be any archaeological features in the area affected by Phase 1 of the development. However, during the archaeological investigation of the five strips of Phase 1, carried out by Headland Archaeology, a number of prehistoric pits, two cremations and a series of features which are dated to the 1st Century AD were encountered. These included vestiges of a Roman road, a possible building and a variety of boundary features thought to be associated with Roman military settlement on the site.

2 METHOD

The work was carried out according to the specifications set out in the project designs of 15/04/97 and April 2003 approved by Northumberland County Council Archaeology Section.

A 360° tracked excavator fitted with a 1.6 m toothless bucket was used for topsoil removal and was monitored by an archaeologist from Headland Archaeology Ltd. Two areas of silty subsoil were also removed under archaeological supervision since they were thought to

represent hill-wash and may, therefore, have obscured archaeological features. During this watching brief several archaeological features were identified and areas around these were cleaned by hand. All features were planned at 1:20. All pits and post-holes were then half sectioned, the sections drawn at 1:10 and described, then fully excavated where artefactual or environmental remains were present, while 10% of all linear features were excavated. Colour transparencies and black and white prints were taken. All features were surveyed and tied in to the National Grid. Samples for ecofactual/environmental remains were taken from contexts that were likely to contain such remains.

3 EXCAVATED FEATURES

The northern half of the stripped area was archaeologically sterile. However, twelve features were identified in the southern half and an area of approximately 374 m^2 around these was cleaned. They consisted of a shallow linear feature in the southwest corner, a cluster of postholes/pit-bases and three pits next to an area of heat-affected natural subsoil (Figure 2).

3.1 Linear feature 572

This linear feature, or gully, was present in the southwest end of the stripped area, was oriented northwest-southeast and had been heavily truncated at the southeast end. It continued outwith the stripped area into the southeast facing trench section. This gully was similar in form to features found in previous strips, notably 422 (Dalland 2000). It is likely that gully 572 was contemporary with the other similar linear features excavated during previous strips, which would date it to the Roman period. Of note is the fact that gully 572 was on the same orientation and in line with a pit alignment to the southeast and may, in some way, be related to them (Figure 1).

3.2 Postholes/pits

The greatest concentration of features uncovered was located to the northwest of gully 572 and consisted of a cluster of post-holes and pit-bases. Features 550,554 and 560 were post-holes possibly forming three corners of a post-built structure (Figure 2). Immediately to the west were four features (553, 557, 564 and 562). These were either post-holes, or heavily truncated pits. Features 553 and 562 contained pottery of a similar type to that found previously in 457 and 463 (Figure 2). Flint debitage was recovered from samples taken from features 560, 554 and 564. Feature 564 also contained some burnt clay and a small piece of ferrous slag. An isolated pit 559, of unknown date, was located to the south of these features.

A complete four-post structure, excavated during the previous phase of works (Dalland 2000), was present roughly twelve metres to the southwest of this new group of features, with a similar arrangement of pits/post-holes to the west. The structure formed by post-holes 550, 554 and 560 is almost identical in terms of dimensions and spatial distribution. It is possible that this, also, was a four-post structure and one post-hole has been lost through truncation. It is likely that these two structures, and associated features, are contemporary and had a similar function. It is thought that these 'four-posters' may represent an elevated grain store. The pottery is consistent with that found in a Roman military installation (Dalland 2000).

Another group of features was located close to the midpoint of Strip 1 (Figure 2). These consisted of a pit/posthole 568 and two heavily truncated pits next to a small area of heat-affected natural subsoil. Feature 568 contained two sherds of prehistoric pottery. Pits 566 and 574 were very shallow and contained no dating evidence.

4. ARTEFACT RECORD

During excavation 8 potsherds were recovered from two different contexts. One further potsherd was recovered during the processing of samples from another context. Seven of these sherds are similar in all respects, to the Roman pottery recovered during previous excavations at this site, and as such are assumed to be of the same date (Flavian).

The two sherds recovered from feature 568 are thought to date to the Early Bronze Age, given similarities in decoration with pottery found during previous seasons work.

The pottery will be added to the main assemblage for full analysis as part of the post-excavation programme.

5. ENVIRONMENTAL RECORD

Bulk samples were collected from twelve deposits. These were subsequently floated, washed and then assessed by Mhairi Hastie (see Appendix VI).

Pottery, ceramic material, struck flint and ferrous slag were also recovered and will be added to the assemblages recovered by other means.

6. STORAGE AND CURATION

The written, drawn and photographic records are currently held by Headland Archaeology, as are the finds and environmental material. Where appropriate these materials are stored in controlled environments. It is anticipated that the site archive including finds will be deposited at Museum of Antiquities, Newcastle upon Tyne following the completion of post-excavation analysis.

7. STATEMENT OF POTENTIAL

7.1 The excavated features

The investigated features together with the composition of the pottery assemblage, seems to indicate that the excavations are approaching the margins of a previously unknown Roman military site of 1st century AD date. The precise nature and extent of this site cannot be determined from the work carried out so far. It would appear that areas of higher relief have been subjected to greater levels of plough truncation, and as such these areas contain less archaeological features. Even so, such a site would be of high significance and worthy of publication in an appropriate regional or specialist journal.

7.2 Potential for Artefactual Analysis

The collection of Roman pottery and associated finds is clearly of national significance and should be published in full.

7.3 Potential for Environmental Analysis

The material retrieved from the samples from Phase 2, Strip 1 has a low potential to yield useful environmental information, although it may be more significant when taken along with the previous years finds. In some cases a species identification of the charred wood from the postholes might also provide useful evidence relating to the nature of any super-structural elements.

7.4 Dating

Dating material was obtained from 8 different contexts. However, most of these are likely to be dated more precisely by the potsherds recovered from the site.

BIBLIOGRAPHY

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Dalland, M 2000 'Wooperton gravel quarry Phase 1, Fifth strip. Assessment report' Unpublished report for RMC Aggregates (Northern) Ltd.

Glendinning, B 1999 'Wooperton gravel quarry Phase 1, Fourth strip. Assessment report' Unpublished report for RMC Aggregates (Northern) Ltd.

ILLUSTRATIONS

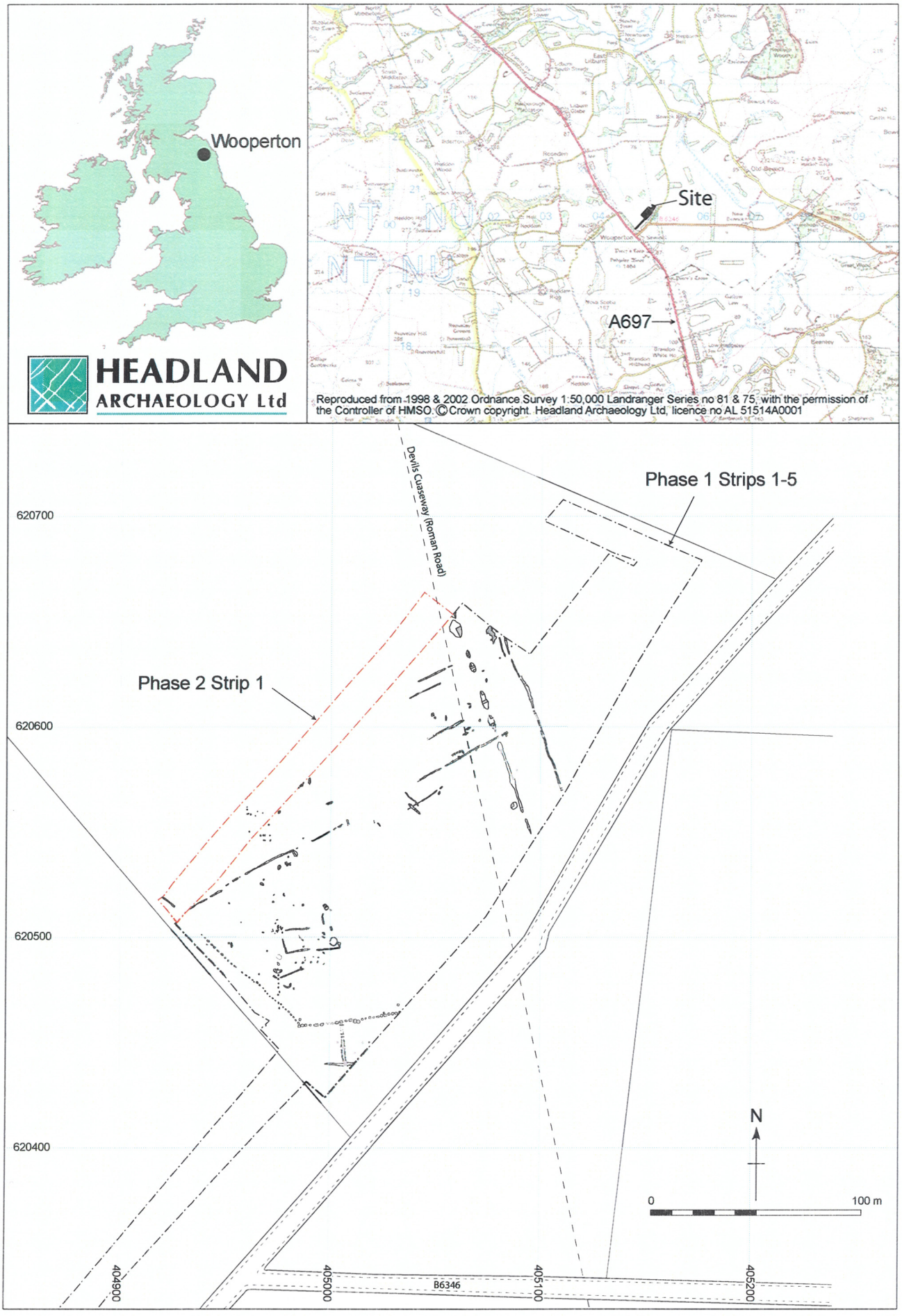

Figure 1. Wooperton Quarry- Phase 2 Strip 1: Site location.

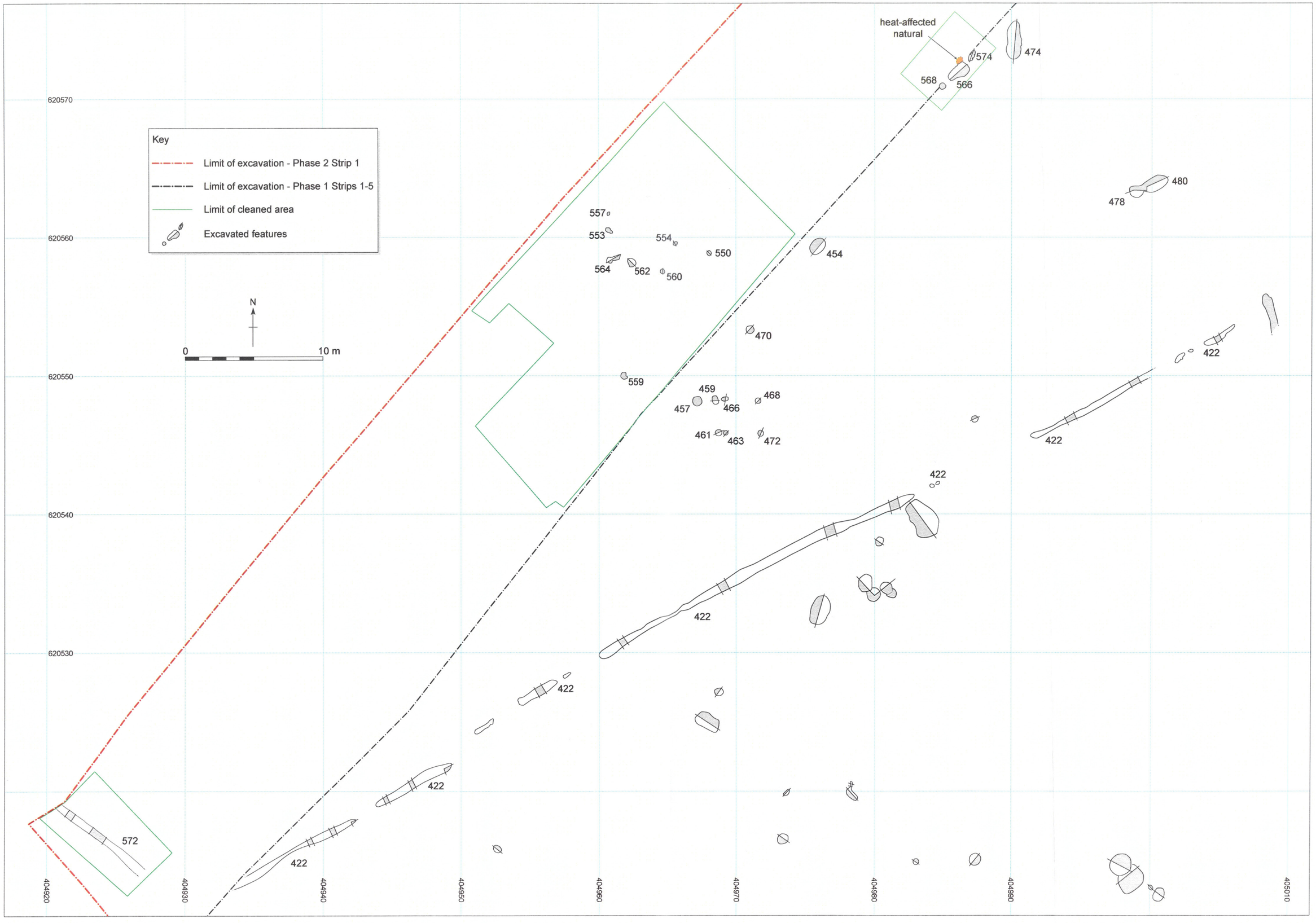

Figure 2. Wooperton Quarry- Plan of excavated features with related features from Phase 1 Strips 1-5.

Appendix I

Archive listings

Description	Quantity
Drawings	5 sheets
Location Map	1 sheet
Excavation plan	1 sheet
Context sheets	26 sheets
Photographic record	1 sheet
Black and White print films	1 film
Colour slides	12 slides

Appendix II

Context Summary

Context no.	Type	Colour	Texture	Inclusions	Comments
Contexts 1-549: see Phase one, Strips 1-5					
550	Cut	-	-	-	Cut of posthole. Filled by 551 Diameter: 0.35 m Depth: 0.22 m
551	Deposit	Mid-light brown	Sandy silt	Moderate gravel, rounded pebbles	Fill of post-hole 550
552	Deposit	Mid greyish brown	Silty sand	Common rounded stone, occasional charcoal	Fill of pit base/post-hole 553 Contained several pottery sherds
553	Cut	-	-	-	Cut of pit base/post-hole. Filled by 552 Length: 0.59 m Width: 0.34 m Depth: 0.10 m
554	Cut	-	-	-	Cut of post-hole. Filled by 555 Length: 0.34 m Width: 0.27 m Depth: 0.18 m
555	Deposit	Mid-light brown	Sandy silt	Moderate gravel, rounded pebbles	Fill of post-hole 554
556	Deposit	Light greyish brown	Silt sand	Common gravel, occasional charcoal	Fill of post-hole 557
557	Cut	-	-	-	Cut of post-hole. Filled by 556 Diameter: 0.28 m Depth: 0.05
558	Deposit	Mid-dark brown	Silty sand	Common rounded gravel, occasional charcoal	Fill of post-hole 559
559	Cut	-	-	-	Cut of pit-base/post-hole. Filled by 558 Length: 0.54 m Width: 0.43 m Depth: 0.16 m
560	Cut	-	-	-	Cut of post-hole. Filled by 561 Diameter: 0.37 m Depth: 0.19 m
561	Deposit	Mid-light brown	Silty sand	Moderate gravel, rounded pebbles	Fill of post-hole 560
562	Cut	-	-	-	Cut of posthole. Filled by 563 Length: 0.68 m Width: 0.58 m Depth: 0.20 m
563	Deposit	Mid-light brown	Silty sand	Moderate gravel, rounded pebbles	Fill of post-hole 562
564	Cut	-	-	-	Cut of posthole. Filled by 565 Length: 0.49 m Width: 0.38 m Depth: 0.13 m
565	Deposit	Mid grey	Sandy silt	Moderate gravel, rounded pebbles occasional yellowish clay	Fill of post-hole 564
566	Cut	-	-	-	Cut of shallow pit. Filled by 567

					Length: 1.70 m Width: 1.00 m Depth: 0.25 m
567	Deposit	Light brown	Silty sand	Common rounded gravel, very occasional charcoal	Fill of pit 566
568	Cut	-	-	-	Cut of post-hole. 569 Diameter: 0.40 m Depth: 0.25 m
569	Deposit	Mid brown	Sandy silt	Common small pebbles, occasional large stones <0.10 m	Fill of post-hole 568 Contained two pottery sherds
570	Cut	-	-	-	Cut of tree throw. Filled by 571 Length: 2.10 m Width: 0.85 m Depth: 0.32 m
571	Deposit	Mid-dark brown	Gravelly sand	Occasional rounded stones, charcoal	Fill of tree throw 570 Natural feature
572	Cut	-	-	-	Cut of shallow linear. Filled by 573 Length: 8.00 m Width: 0.50 m Depth: 0.09 m
573	Deposit	Mid-light brown	Sandy gravel	-	Fill of shallow linear 572
574	Cut	-	-	-	Cut of shallow pit. Filled by 574 Length: 0.90 m Width: 0.40 m Depth: 0.05 m
575	Deposit	Reddish brown	Sandy silt	Common rounded pebbles	Fill of shallow pit 574

Appendix III

Photograph register

Shot no.	B&W Print	Slide	Direction facing	Description
Photo nos. 1-441: see Phase 1, Strips 1-5				
442	1	1	N	Post-hole 553 half sectioned
443	1	1	N	Post-hole 550 half sectioned
444	1	1	N	Post-hole 562 half sectioned
445	1	1	W	Post-hole 564 half sectioned
446	1	1	NE	Pit 566 and post-hole 568 pre-excavation
447	1	1	NW	Posthole 568 half sectioned
448	1	1	NW	Linear 572 sectioned
449	1	1	NW	Linear 572 sectioned
450	1	1	NW	Pit 574 half sectioned
451	1	1	W	Feature 572 sectioned
452	1	1	W	Feature 572 sectioned

Appendix IV

Finds register

Find no.	Context	Material	No.	Comment
Finds 1-10: see Phase one, Strips 1-5				
106	552	Pot	6	Medium grained fabric, body sherds, light orange pink in colour
107	569	Pot	2	Cord impressed body and rim sherd. Prehistoric.
108	561	Pot	1	Medium-fine grained, body sherd, light orange colour.
109	565	Ceramic	10	Burnt clay fragments
110	565	Slag	1	Small piece of ferrous slag
111	555	Flint	1	Small, struck flint flake
112	561	Flint	4	Small, struck flint flakes
113	565	Flint	1	Small, struck flint flake
114	573	Flint	1	Small, possibly struck flint flake
115	563	Flint	1	Small, unstruck flint piece

APPENDIX V

Drawing register

Drawing no.	Date	Scale	Drawn by	Subject
Nos.1-70: see Phase 1, Strips 1-5				
71	29/08/03	1:10	EJ	S facing section of post-hole 550
72	29/08/03	1:20	EJ	Post-ex plan of post-hole 550
73	29/08/03	1:10	EJ	NE facing section of post-hole 554
74	29/08/03	1:20	EJ	Post-ex plan of posthole 554
75	29/08/03	1:10	RM	S facing section of post-hole 553
76	29/08/03	1:20	RM	Post-ex plan of post-hole 553
77	29/08/03	1:10	RM	W facing section of post-hole 557
78	29/08/03	1:20	RM	Post-ex plan of post-hole 557
79	29/08/03	1:10	RM	SW facing section of post-hole 559
80	29/08/03	1:20	RM	Post-ex plan of post-hole 559
81	29/08/03	1:10	EJ	SW facing section of post-hole 560
82	29/08/03	1:20	EJ	Post-ex plan of post-hole 560
83	29/08/03	1:10	EJ	S facing section of post-hole 562
84	29/08/03	1:20	EJ	Post-ex plan of post-hole 562
85	29/08/03	1:10	EJ	E facing section of post-hole 564
86	29/08/03	1:20	EJ	Post-ex plan of post-hole 564
87	01/09/03	1:20	GG	Pre-ex plan of pit 566 and post-hole 568
88	01/09/03	1:10	GG	E facing section of post-hole 568
89	01/09/03	1:10	KAC	West facing section of tree throw 570
90	01/09/03	1:20	KAC	Post-ex plan of tree throw 570
91	01/09/03	1:20	GG	Post-ex plan of pit 566 and post-hole 568
92	01/09/03	1:10	GG	E facing section of pit 568
93	01/09/03	1:10	KAC	SE facing section of linear 572
94	01/09/03	1:20	KAC	Post- ex plan of linear 572
95	01/09/03	1:20	GG	Post- ex plan of pit 574
96	01/09/03	1:10	GG	E facing section of pit 574
97	02/09/03	1:10	KAC	E facing section of linear 572

APPENDIX VI

Assessment of samples

SITE CODE	WOO97	**SITE NAME**	Wooperton Quarry
AUTHOR	Mhairi Hastie		

SAMPLING STRATEGY

Bulk soil samples, ranging in size from 10 - 20 litres were taken from the fills of a series of postholes and one shallow linear feature, for the recovery of palaeoenvironmental remains and small finds.

METHODOLOGY

All samples were subjected to a system of flotation in a Siraf style flotation tank. The floating debris (flot) was collected in a 250 μm sieve and, once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh and air-dried. This was then sorted and any material of archaeological significance removed.

RESULTS

The results are summarised in Tables 1 and 2.

The quantity of finds and palaeoenvironmental remains recovered from the samples was low.

Pottery and burnt clay
One small sherd of Roman pottery was recovered from the fill of a post-hole [560] and small fragments of burnt clay or daub were recovered from another post-hole fill [564].

Flint debitage
Occasional small fragments of flint (<5 mm in diameter) were recovered from four post-hole fills [554, 560, 562 and 564] and the fill of a shallow linear feature [572]. The flint fragments are thought to be the remains of flint debitage.

Slag
One small fragment of ferrous slag was recovered from the fill of a post-hole [564].

Carbonised plant remains
Large quantities of wood charcoal were present in the majority of samples. In addition occasional fragments of carbonised hazelnut shell was recovered from two post-hole fills [554 and 557].

Sample	Context	Context description	Flot Vol (ml)	Hazelnut shell	Charcoal	
					Qty	AMS
1	551	Fill of post-hole [550]	100		++++	*
2	555	Fill of post-hole [554]	100	+	++++	*
3	561	Fill of post-hole [560]	50		++	*
4	552	Fill of post-hole/pit [553]	50		+	
5	556	Fill of post-hole/scoop [557]	40	+	++++	*
6	558	Fill of post-hole [539]	150		++++	*
7	563	Fill of post-hole [562]	150		++++	*
8	565	Fill of post-hole [564]	400		++++	*
9	569	Fill of post-hole [568]	20		++++	*
10	567	Fill of pit [566]	< 10		+	
11	575	Fill of shallow linear feature [572]	10		+	
12	573	Fill of shallow linear feature [572]	50		+	

Key: + = rare, ++ = occasional, +++ = common and ++++ = abundant
* = Sufficient quantities of charcoal for AMS dating

Table 1: Composition of flots

Sample	Context	Context description	Pottery	Burnt clay	Flint	Slag	Charcoal
1	551	Fill of post-hole [550]					+
2	555	Fill of post-hole [554]			+		+
3	561	Fill of post-hole [560]	+		+		+
4	552	Fill of post-hole/pit [553]					+
5	556	Fill of posthole/scoop [557]					+
6	558	Fill of posthole [539]					++++
7	563	Fill of posthole [562]			+		+
8	565	Fill of posthole [564]		+	+	+	++
9	569	Fill of posthole [568]					++
10	567	Fill of pit [566]					
11	573	Fill of shallow linear feature [572]					+
12	573	Fill of shallow linear feature [572]			+		

Key: + = rare, ++ = occasional, +++ = common and ++++ = abundant

Table 2: Composition of flots

DISCUSSION

Artefacts

The majority of artefacts were recovered from post-hole fills; a mixture of material was present including a sherd of Roman pottery, occasional small flint fragments thought to be flint debitage and one small fragment of iron slag. The presence of flint debitage in a number of post-holes may suggest that some form of flint working was being carried inside or near to the post-built structure.

Carbonised remains

Wood charcoal was recovered from all the samples and was recorded as abundant in seven samples. Those samples identified by an asterisk in Table 1 probably contain sufficient material for an AMS date in that they contain individual charcoal fragments greater than the size of a single cereal grain. Those that also have a value of '++++' in the charcoal column would however, offer best chances of obtaining a reasonably large charcoal sample for dating purposes. Identification of the species of wood present would have to be undertaken prior to dating.

The post-hole fills contained the highest concentration of wood charcoal. These features were clustered next to an area of heat-affected natural subsoil and the large quantity of charcoal recovered from the post-holes could suggest that the post-built structure was destroyed by conflagration. If this were indeed the case then identification of the wood species present would indicate the wood species being used for construction purposes.

Although dominated by wood charcoal two samples also contained a number of carbonised hazelnut shell fragments. The quantity of hazelnut shell recovered from both samples was however too small for dating purposes.