Earthwork Survey and Archaeological Watching Brief at Croxden Quarry, Freehay, Staffordshire







© Worcestershire County Council

Worcestershire Archaeology

Archive and Archaeology Service The Hive, Sawmill Walk, The Butts, Worcester WR1 3PD

Status: Version 1 Date: 4 December 2017 Author: Jamie Wilkins jwilkins@worcestershire.gov.uk Contributors: C Jane Evans Illustrator: Carolyn Hunt Project reference: P5049 Report reference: 2497 HER reference: Unassigned Oasis id fieldsec1-295245

Contents Summary

Report

1	Background	2
1.1	Reasons for the project	2
2	Aims	2
3	Methods	
3.1	Personnel	
3.2	Documentary research	
3.3	List of sources consulted	
3.4	Fieldwork strategy	4
3.5	Structural analysis	4
3.6	Artefact methodology, by C Jane Evans	4
3.	6.1 Artefact recovery policy	
3.	6.2 Method of analysis	
3.7	Environmental archaeology methodology	4
	7.1 Sampling policy	
3.8	Statement of confidence in the methods and results	4
4	The application site	5
4.1	Topography, geology and current land-use	5
4.2	Archaeological Background	
5	Structural analysis	3
5.1	Earthwork Survey	
5.2	Watching Brief	
5.	2.1 Phase 1: Natural deposits	7
5.	2.2 Phase 2: Medieval - Post-medieval deposits	
5.	2.3 Phase 3: Post-medieval - Modern deposits	7
5.	2.4 Phase 4: Modern deposits	В
5.3	······································	
5.	3.1 Further analysis and reporting	
5.	3.2 Discard and retention	8
6	Synthesis	3
7	The impact of the development10)
- 7.1	Impacts on sustainability	
8	Publication summary10	
9	Acknowledgements	
10		
IU	Bibliography10	J

1

Archaeological Watching Brief at Croxden Quarry, Freehay, Staffordshire

Jamie Wilkins With contributions by C Jane Evans

Summary

An archaeological watching brief and earthwork survey was undertaken on behalf of Tarmac Ltd at Croxden Quarry, Freehay, Staffordshire, (NGR ref SK 403547 41110) in preparation for a new phase of mineral extraction. The 2017 investigations comprised Areas A and B of the Phase 3 extension plan.

Archaeological features observed provided evidence of a primarily agricultural landscape. Four furrows were recorded in the south of the investigation area and are a clear indictor for rural agricultural activity. These furrows did not survive as extant earthworks, unlike those identified in an adjoining field to the west. It is highly likely that the furrows had a medieval origin, with artefactual evidence indicating they continued to be worked into the post-medieval period.

A second phase of agricultural activity was identified in the form of five post-medieval field boundary ditches. Three of these ditches had associated earthwork banks, and cartographic evidence indicates they continued in their function as boundaries throughout the 20th century. The ditches were contemporary to one another as they intentionally compartmentalised the larger field into five smaller parcels of land. This may be an indicator of a change in agricultural practice, with a possible introduction of pasture to this area.

No evidence for prehistoric activity was observed during the 2017 investigation areas. Wider evidence comprises worked flints and a Bronze Age bowl barrow at Toot Hill, so the potential for prehistoric activity in future phases remains.

Report

1 Background

1.1 Reasons for the project

An earthwork survey and archaeological watching brief was undertaken at Croxden Quarry, Freehay, Staffordshire (NGR SK 403547 41110; Figure 1). It was commissioned by Tarmac Limited (the Client), in response to an archaeological condition (Condition 16) placed upon a permitted extension to an existing quarry (Application SM.11/07/110 M; dated 19-08-2014) which has been granted to the Client by Staffordshire County Council (the LPA/MPA) following the advice of the Curator (Stephen Dean Council: Archaeological Advisor to the LPA and the Minerals Planning Authority).

The proposed development site is considered to include heritage assets and potential heritage assets, the significance of which may be affected by the application.

No specific brief was prepared by the Curator for this phase of works, but this project aims to conform to the generality of briefs previously issued for the site, and for which a project proposal (including detailed specification) was produced (WA 2017) and approved by the Curator.

The project also conforms to the *Standard and guidance: Archaeological watching brief* (CIfA 2014a).

2 Aims

The aims of this project were outlined in the detailed specification (WA 2017) and are presented below:

The permitted quarrying area has the potential to contain archaeological remains of local and regional significance, most probably of medieval or post-medieval date but potentially also including those of Roman or earlier date. These are anticipated as being unlikely to be especially complex or extensive in nature.

The aims of the project were:

- to ensure the archaeological monitoring of all aspects of the development programme likely to affect archaeological remains;
- to secure the adequate recording of any archaeological remains revealed by the development programme;
- to gather, if possible, sufficient information to establish extent, date and function of any archaeological remains within the proposed development area;
- to determine the extent, condition, character, quality of survival, importance and date of any archaeological remains present;
- to determine the chronological phasing of the archaeology;
- to investigate the site as necessary in order to establish an adequate record and significance of the archaeology; and
- to secure the analysis, conservation and long term storage of any artefactual/ecofactual material recovered from the site.

More specifically the project had the following objectives:

- to undertake a survey of the earthwork features as identified by in an Archaeology and Cultural Heritage Assessment (produced for this site) and any other such features as may be identified;
- to establish and record a section across any extant earthwork banks and ditches, in order to investigate/ examine the construction techniques of the banks (identifying any phases of repair and/or reuse) and to gather dating evidence from the features; and
- to undertake an archaeological watching brief across the area of topsoil/stripping.

More specifically, the programme of work within Phases A and B has the potential to contribute to the following research themes:

- Earlier prehistoric occupation and other activity within the landscape (funerary activity, settlement and landuse);
- Iron Age and Romano-British activity (settlement and field systems);
- Post-Roman landscape features; and
- Medieval and post-medieval parkland and landscape features.

These will be considered within the context of both regional and national research frameworks and in particular the West Midlands Regional Research Framework (Watt 2011) and frameworks recently established for mineral extraction areas of Staffordshire (Mann *et al* 2016).

3 Methods

3.1 Personnel

The project was led by Jamie Wilkins (BA (hons.)); who joined Worcestershire Archaeology in 2015 and has been practicing archaeology since 2013, assisted by Peter Lovett (BSc (hons.)). The project manager responsible for the quality of the project was Robin Jackson (BA (hons.); ACIfA). Illustrations were prepared by Carolyn Hunt (BSc (hons.); PG Cert; MCIfA). Jane Evans (BA, MA, MCIfA), contributed the finds report.

3.2 Documentary research

An Environmental Statement was produced by Tarmac Ltd, and accompanied the planning application. This included an Archaeology and Cultural Heritage Assessment (ACHA) Statement (produced by Wardell Armstrong; ACHA ref: ST11571-RPT-001). The archaeological background for the site presented below (Section 4.2) also draws upon Worcestershire Archaeology's understanding of the aggregate producing areas of Staffordshire (Mann *et al* 2016).

3.3 List of sources consulted

Cartographic sources

- 1st edition Ordnance Survey Map, 1888, 6":1 mile
- 2nd edition Ordnance Survey Map, 1900, 6":1 mile
- 3rd edition Ordnance Survey Map, 1925, 6":1 mile

Documentary sources

Published and grey literature sources are listed in the bibliography.

3.4 Fieldwork strategy

A detailed specification has been prepared by Worcestershire Archaeology (WA 2017).

The earthwork survey was undertaken on 20th April 2017, prior to the commencement of any earth moving. The watching brief phase was undertaken between 15th May and 26th June 2017. The Worcestershire Archaeology project number is P5049.

The 2017 stage of works comprised areas A and B of Phase 3, which covered approximately 2.5 hectares. The location of the site is indicated in Figure 1.

Deposits considered not to be significant were removed using a 360° tracked excavator, employing a toothless bucket and under intermittent archaeological supervision (Plate 1). Subsequent excavation was undertaken by hand. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard Worcestershire Archaeology practice (WA 2012).

3.5 Structural analysis

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

3.6 Artefact methodology, by C Jane Evans

The finds work reported here conforms with the following guidance: for finds work by ClfA (2014), for pottery analysis by PCRG/SGRP/MPRG (2016), for archive creation by AAF (2011), and for museum deposition by SMA (1993).

3.6.1 Artefact recovery policy

The artefact recovery policy conformed to standard Worcestershire Archaeology practice (WA 2012; appendix 2).

3.6.2 Method of analysis

All hand-retrieved finds were examined. They were identified, quantified and dated to period. A terminus post quem date was produced for each stratified context. All information was recorded on a pro forma Access database.

No artefacts from environmental samples were examined.

The pottery and ceramic building material was examined by eye and classified by broad fabric group.

3.7 Environmental archaeology methodology

3.7.1 Sampling policy

Sampling was undertaken according to standard Worcestershire Archaeology practice (WA 2012). In the event no deposits were identified which were considered to be suitable for environmental analysis.

3.8 Statement of confidence in the methods and results

The methods adopted allow a high degree of confidence that the aims of the project have been achieved.

4 The application site

4.1 Topography, geology and current land-use

Areas A and B comprise the easternmost fields of the Phase 3 southern extension of Croxden Quarry. The site is located immediately south of the current Quarry complex and was formerly accessible from Coppice Lane, which still bounds it to the south. The western boundary comprises fields of pasture, which were also subject to the ACHA (ref: ST11571-RPT-001). The site is bounded to the east by a parcel of coppiced woodland. The site was formerly in use as pastureland.

The site is situated on a northward slope, with the south of site at 220.04m *above ordnance datum* (AOD), approximately 4m higher than the north at 215.53m AOD. The steepest section of this slope is located in the west of the site, where the slope differential is approximately 10m.

The bedrock geology of the site comprises Chester Formation Sandstone and conglomerate, which are fluvial in origin (BGS 2017). No superficial deposits are recorded by BGS for this area.

4.2 Archaeological Background

The archaeological background presented here is based upon information obtained in the ACHA (ref: ST11571-RPT-001) and also draws upon Worcestershire Archaeology's understanding of the archaeology of the region and especially of the aggregate producing areas of Staffordshire (Mann *et al* 2016). This was summarised in the detailed specification produced for this project (WA 2017) and is presented below:

In summary, no designated or non-designated heritage assets were recorded on the Staffordshire Historic Environment Record (HER) prior to the ACHA and no intrusive archaeological investigations have taken place within the extension area. To date the walk-over survey undertaken as part of the ACHA is the only fieldwork completed within the site boundary or indeed the search area of the ACHA.

More widely, assessment of sites recorded on the HER in the search area can be summarised as follows (more detailed descriptions and references are located in the ACHA; Appendix 1):

Prehistoric

A barrow is indicative of Bronze Age funerary activity and a nearby landowner (at Wood Farm) has reported finds of prehistoric flints.

Iron Age and Romano British

The HER does not record any evidence of Iron Age or Romano-British activity within the boundary of the site or within the search area.

Anglo Saxon

The HER does not record any evidence of Anglo-Saxon activity within the boundary of the site or within the search area.

Medieval

Areas of ridge and furrow within the west of the search area reflect agricultural activity probably associated with Cheadle to the north-west, a settlement documented in Domesday. In addition two medieval fishponds are recorded 430m south-east of the site boundary. In addition, the landowner at Wood Farm has reported finds of medieval coins, brooches and at least one pilgrim badge

Post medieval and cartographic evidence

The site is located within the Cheadle coal field which was exploited from at least the seventeenth century as a response to local demands as well as requirements from the Cheshire salt industry. The HER records that some small-scale coal extraction may have taken place during the post-medieval period within the search area; however there is no evidence for this within the site boundary.

Cartographic evidence dated 1722 shows the parts of the site outside of the Parish of Cheadle; approximately the eastern three quarters of the site and including all of Phase 3; this shows the site area as

unenclosed common land with some areas of wood. The 1844 Cheadle Tithe Map covers all of Phase 1 and the western quarter of Phase 2 and shows that the western quarter of the site had been enclosed by the mid nineteenth century and that roads were present within the site boundary. Within Phase 1, evidence for the exploitation of the local geology was provided by the record of a

'gravel pit'. The rest of Phase 1 comprised fields, the names of which included 'Common Field' and 'Common Piece', indicated enclosure of land from common land. The western quarter of Phase 2 was shown as being under plantation. The remainder of the site was located in the Croxden Parish which was not subject to Tithe. The Cheadle map does, however, show a road entering Croxden Parish. This road, which would have been aligned through the Croxden Parish part of the site, was not shown on the preceding 1722 map and therefore indicates that since the early eighteenth century the part of the site in the Croxden Parish may have undergone some change, perhaps having been enclosed.

The 1888 first edition Ordnance Survey map shows the whole of the site and all of the phases. The road to Croxden Parish was therefore shown in its entirety on this map which also shows that by the end of the nineteenth century the majority of the site had indeed been enclosed.

5 Structural analysis

The site area and below ground features recorded are shown in Figures 2 and 3. Figures 4 and 5 present the results of the earthwork survey combined with Figure 5 combining these with the features recorded in the watching brief phase of works. The results of the structural analysis are presented in Appendix 1.

5.1 Earthwork Survey

A total of four extant earthworks were identified within Areas A and B of Phase 3 (Figs 4 and 5). These comprised three probable banks, and a possible Holloway identified in the ACHA walkover survey.

Bank 103

In the northeast corner of site a northwest to southeast earthwork bank was observed (Plate 2). This bank was the best preserved and most convincing bank recorded. It was visible for *circa* 50m before being entirely covered by the edge protection bund from prior quarrying activity (Phase 2). *Bank 103* appeared to have an associated ditch on the northeast edge, as it was located 0.54m lower than the south-west edge (Fig 4: Profile 1). The highest point of this earthwork was located at 215.308m AOD. This bank extended along the entire northern boundary of the area recorded, and is likely a continuation of the bank identified further west in the ACHA. It remained in use as a banked ditch boundary until the initiation of this new phase of mineral extraction.

Bank 104

A northeast to southwest aligned bank was observed in the south of the site (Plate 3). The preservation of *Bank 104* was poor, with almost no visible ridge present (Fig 4: Profile 2). The bank's poor state of preservation was potentially caused via modern truncation, as only a stretch measuring *circa* 27m in length was observed in the south of site. The top of the bank was located at 219.339m AOD, measuring 0.27m higher than the southeast edge. This bank was likely in use as a boundary until recently, with the northern section deliberately removed. The probable function of this bank, in conjunction with *Bank 105*, was to divide the field into smaller parcels of land.

Bank 105

A further bank was identified *circa* 57.50m west of *Bank* 104 and followed the same northeast to southwest alignment (Plate 4). The bank was well preserved and was clearly visible as an earthwork boundary (Fig 4: Profile 3). No associated ditch was identified during the survey. Similar to *Bank* 104, this earthwork only survived in the southern section of site, for a length of *circa* 27m. This may further suggest that the northern length of the banks were deliberately removed. *Bank* 105 had retained much of its shape with steep sides and the highest point sitting at 220.368m AOD, 0.44m above the north-eastern side. This bank was likely used in conjunction with *Bank* 104 to partition the larger field.

Possible Holloway

The possible holloway identified in the ACHA was observed in the north-east boundary of the site (Plate 5). This earthwork had large, steep banks, with the top of the southernmost bank located at 215.16m AOD, a full 2.37m higher than the holloway track at 212.79m AOD. The survey identified that this feature was not a holloway, but a disused access ramp from the quarry (Plate 6). Indeed, the northernmost bank of the 'holloway' was identified as the edge protection bund, comprised of redeposited sand and gravels, which would have been instated during construction of the ramp. Plate 6 shows this access ramp heading downslope towards the quarry.

5.2 Watching Brief

5.2.1 Phase 1: Natural deposits

The natural substrate (102) was encountered between 0.21m-0.42m below the ground surface. It comprised a brownish-orange sand, which was interspersed with gravels and pebbles. This deposit was observed across the entirety of the site, with small variation in colour.

5.2.2 Phase 2: Medieval - Post-medieval deposits

The earliest archaeological deposits observed were a series of four furrows, located in the south of site. These features appeared to be heavily truncated by modern ploughing and no extant earthworks were identified during the topographic survey. The furrows followed a northwest to southeast alignment and with the best preserved [117] observed over a length of 102m. This furrow was 1.36m at its widest and survived to a depth of 0.15m (Plate 7). The fill (116) comprised loose, greyish-brown, silty sand containing an abundance of medium to large sub-rounded cobbles. All of the furrows observed were notable for the presence of these cobbles, which appear to have been sorted via the plough. The furrows were also truncated by the post-medieval field-boundary ditches recorded.

5.2.3 Phase 3: Post-medieval - Modern deposits

The only other archaeological features observed on site comprised five post-medieval field boundary ditches (Figs 2 and 3). These ditches appear contemporary and designed to compartmentalise the larger field into a series of five smaller parcels of land. These boundaries can be observed on the 1st edition mapping.

The northernmost ditch [119] was aligned northwest to southeast and was observed over a length of 250m (Plates 8 and 9). This ditch also survived for a width of 1.01m and a depth of 0.35m at 215.80m AOD (Fig 3: Section 14 . This ditch comprised the northernmost boundary of the field systems and likely continued to fulfil this function until the present day. This boundary survived as extant earthworks and was recorded as bank 103 during the topographic survey. The ditch was filled with a dark, soft silty sand which was recorded as being topsoil-like, reflecting the relatively recent date of the feature.

Ditches [108], [111], [113], and [115] (Fig 3: Sections 4, 6 8 and 10; Plates 10-13) all followed a northeast to southwest alignment, meeting ditch [119] in the north and continuing out of the site limits in the south. These ditches were observed to truncate the furrows recorded in the south. The uppermost fills of all these ditches comprised a dark blackish-brown, sandy loam. Similar to ditch [119], this likely reflects the fact these boundaries were in use until relatively recently.

The westernmost ditch [111] was observed for a length of 79.50m, a maximum width of 1.14m and survived to a depth of 0.24m. There was no evidence of any surviving earthworks associated with this ditch. Ditch [108] was also located in the west of site and was 43m east of ditch [111]. This ditch was visible for a length of 90m, a width of 1.11m and a depth of 0.14m. This ditch had an extant earthwork bank which was recorded as 105 during the topographic survey.

Ditch [113] was located in the centre of site and was 55m east of ditch [108] and 61m west of ditch [115]. This ditch was observed for a length of 93m, a width of 1.59m and a depth of 0.26m. Ditch [113] also had a surviving, though heavily truncated, earthwork bank recorded as 104.

Finally, the westernmost ditch [115] was observed for an overall length of 90m, a width of 1.51m and a depth of 0.17m. There was no evidence of any surviving earthworks for this ditch.

5.2.4 Phase 4: Modern deposits

A silty sand topsoil overlay the entirety of the site. This deposit contained occasional post-medieval pottery and ceramic building material. Overlain by the topsoil, was a thin layer of orangey-brown subsoil. This strata was not present across the entire site, but was primarily located at the top of the slope, in the south of site. The subsoil was not observed on the slope itself.

5.3 Artefact analysis, by C Jane Evans

period	material class	material subtype	object specific type	count	weight(g)
post-medieval/modern	ceramic	earthenware	brick	1	293
post-medieval/modern	ceramic	earthenware	clay pipe	2	8
post-medieval/modern	ceramic	earthenware	pot	16	270
post-medieval/modern	ceramic	earthenware	tile	2	123
post-medieval/modern	glass		bottle	2	45
modern	ceramic	earthenware	tile	2	51

The artefactual assemblage recovered is summarised in Tables 1 and 2.

Table 1: Quantification of the assemblage

The small assemblage came from five stratified contexts and could be dated to the late postmedieval (18th century) to modern period (Table 1). Finds included post-medieval red ware, modern china, clay pipe, ceramic building material and vessel glass.

5.3.1 Further analysis and reporting

No further analysis is required.

5.3.2 Discard and retention

The finds can be considered for discard with the agreement of the receiving museum.

6 Synthesis

The results of the 2017 stage of works indicate the land encompassed by Areas A and B has primarily been the focus of sustained agricultural activity and little else. All of the archaeological features recorded, relate to medieval and post-medieval agriculture, with no evidence associated with a pre-medieval landscape, and no evidence suggestive of settlement activity.

context	fill of	feature type	material class	material subtype	object specific type	fabric class	count	weight(g)
100		topsoil	ceramic	earthenware	pot	modern china	1	39
109	111	ditch	ceramic	earthenware	pot	modern china	3	23
112	113	ditch	ceramic	earthenware	brick		1	293
114	115	ditch	ceramic	earthenware	clay pipe	post-medieval red ware	1	4
114	115	ditch	ceramic	earthenware	pot	modern china	10	66
114	115	ditch	ceramic	earthenware	pot	post-medieval red ware	1	139
114	115	ditch	ceramic	earthenware	tile		2	123
114	115	ditch	glass		bottle		2	45
116	117	furrow	ceramic	earthenware	clay pipe		1	4
116	117	furrow	ceramic	earthenware	pot	modern china	1	3
116	117	furrow	ceramic	earthenware	tile		2	51

Table 2 Quantification of the pottery by feature, context and material type

The four furrows identified in the south of the area indicate an earlier phase of arable farming, potentially medieval in origin, though no material earlier than post-medieval was recovered. This does suggest, however, that the furrows continued to be worked well into the post-medieval period. The presence of these furrows is unremarkable and is consistent with the adjoining field to the west, where extant ridge and furrow was identified in the ACHA.

A second phase of agricultural activity was identified via the presence of a series of ditches and earthwork banks. The ditches functioned as field boundaries and partitioned the larger field into five regular, smaller parcels of land, disregarding the earlier ridge and furrow. This process may represent a change in agricultural activity, potentially from arable to pasture. Material recovered from these ditches indicates that they were in use as boundaries from the post-medieval to modern periods, and indeed all five boundaries are consistent with those visible on the 1st edition, 2nd edition and 3rd edition Ordnance Survey mapping.

Continued archaeological investigations at Croxden Quarry have the potential to develop our understanding of small-scale medieval and post-medieval rural activity, including the development of agriculture; which was identified as a research agenda in the Staffordshire Aggregates Resource Assessment (Mann *et al* 2016). Further work also has the potential to develop our understanding of prehistoric activity within the region. Despite a lack of prehistoric evidence during the 2017 phase of works, the wider landscape, including the nearby Bronze Age bowl barrow at Toot Hill (NMR SK03NE3), indicates the potential remains.

7 The impact of the development.

7.1 Impacts on sustainability

The NPPF emphasises the importance of sustainability (DCLG 2012, section 131).

The historic environment is a non-renewable resource and therefore cannot be directly replaced. However mitigation through recording and investigation also produces an important research dividend that can be used for the better understanding of the area's history and contribute to local and regional research agendas (*cf* NPPF, DCLG 2012, section 141).

8 **Publication summary**

Worcestershire Archaeology has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, Worcestershire Archaeology intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

An archaeological watching brief and earthwork survey was undertaken on behalf of Tarmac Ltd at Croxden Quarry, Freehay, Staffordshire, (NGR ref SK 403547 41110)in preparation for a new phase of mineral extraction. The 2017 investigations comprised Areas A and B of the Phase 3 extension plan.

The archaeological features observed provide evidence of a primarily agricultural landscape. Four furrows were recorded in the south of the investigation area and are a clear indictor for rural agricultural activity. These furrows did not exist as extant earthworks, unlike those identified in an adjoining field to the west. It is highly likely that the furrows had a medieval origin, with artefactual evidence indicating they continued to be worked into the post-medieval period.

A second phase of agricultural activity was identified in the form of five post-medieval field boundary ditches. Three of these ditches had associated earthwork banks, and cartographic evidence indicates they continued in their function as boundaries throughout the 20th century. The ditches were contemporary to one another as they intentionally compartmentalised the larger field into five smaller parcels of land. This may be an indicator of a change in agricultural practice, with a possible introduction of pasture to this area.

No evidence for prehistoric activity was observed during the 2017 investigation areas. Wider evidence comprises worked flints and a Bronze Age bowl barrow at Toot Hill, so the potential for prehistoric activity in future phases remains.

9 Acknowledgements

Worcestershire Archaeology would like to thank the following for their kind assistance in the conclusion of this project, Nick Atkins and Mark Collier (Tarmac Ltd), Rob Jackson (Stokey Plant Hire Ltd) and Stephen Dean (County Archaeologist, Staffordshire County Council).

10 Bibliography

AAF 2011 Archaeological archives: a guide to the best practice in the creation, compilation, transfer and curation, Archaeological Archives Forum, <u>http://www.archaeologyuk.org/archives/</u>

BGS 2016 *Geology of Britain Viewer*, <u>http://mapapps.bgs.ac.uk/geologyofbritain/home.html</u>, British Geological Survey, accessed 11 September 2017

ClfA 2014a *Standard and guidance: Archaeological watching brief,* Chartered Institute for Archaeologists, http://www.archaeologists.net/codes/ifa

ClfA 2014b Standard and guidance for the collection, documentation, conservation and research of archaeological materials, Chartered Institute for Archaeologists, http://www.archaeologists.net/codes/ifa

DCLG 2012 *National Planning Policy Framework*, Department for Communities and Local Government

DCLG/DCMS/EH 2010 *PPS5 Planning for the historic environment: historic environment planning practice guide*, Department for Communities and Local Government/Department for Culture, Media and Sport/English Heritage

English Heritage 2011 The setting of heritage assets, English Heritage

Mann A, Blake S, Jackson R, and Taylor D, 2016 *Archaeology and Aggregates in Staffordshire*, Worcestershire County Council and Staffordshire County Council, report **2190**

Prehistoric Ceramics Research Group, Study Group for Roman Pottery and Medieval Pottery Research Group, 2016 A standard for pottery studies in archaeology

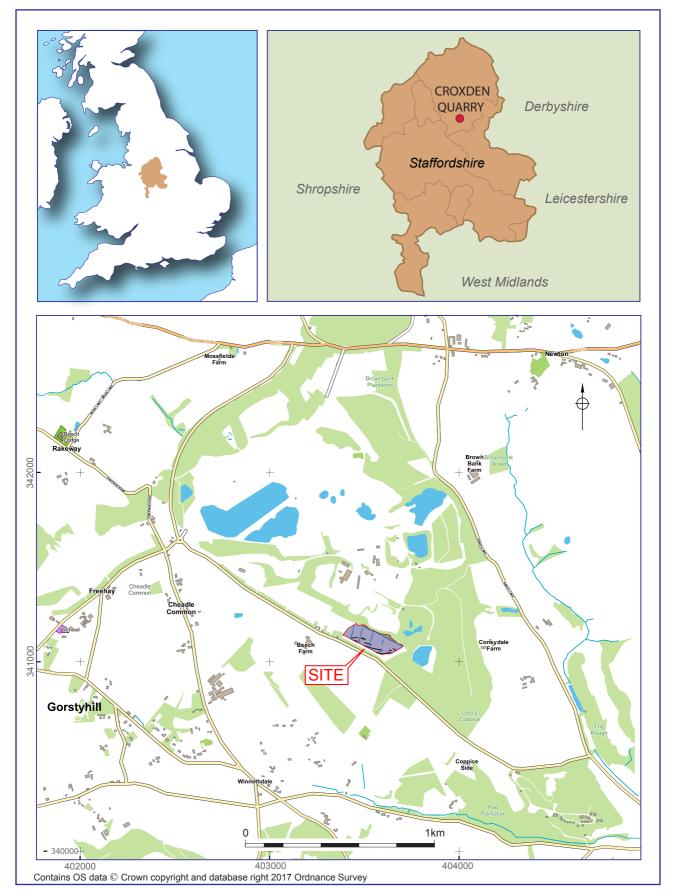
SMA 1993 *Selection, retention and dispersal of archaeological collections,* Society for Museum Archaeology, <u>http://www.socmusarch.org.uk/publica.htm</u>

WA 2012 *Manual of service practice, recording manual*, Worcestershire Archaeology, Worcestershire County Council, report **1842**

WA 2017 Proposal for an archaeological watching brief and earthwork survey at Croxden Quarry, Cheadle, Staffordshire, Worcestershire Archaeology, Worcestershire County Council, unpublished document dated 24 April 2017, **P5049**

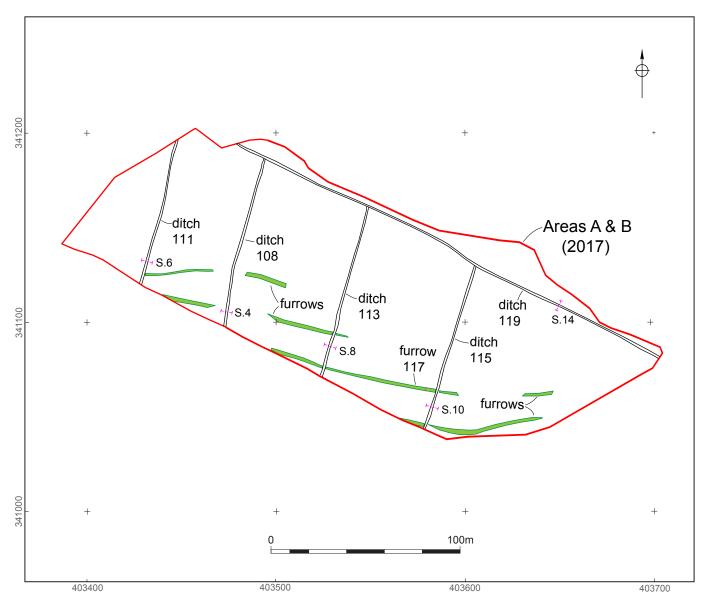
Wardell Armstrong Archaeology and Cultural Heritage Assessment, (WA ref: ST11571-RPT-001), in Tarmac Croxden Quarry: Part B – Environmental Statement, accessed as Appendix 1 in WA 2017 Proposal for an archaeological watching brief and earthwork survey at Croxden Quarry, Cheadle, Staffordshire, Worcestershire Archaeology, Worcestershire County Council, unpublished document dated 24 April 2017, **P5049**

Figures



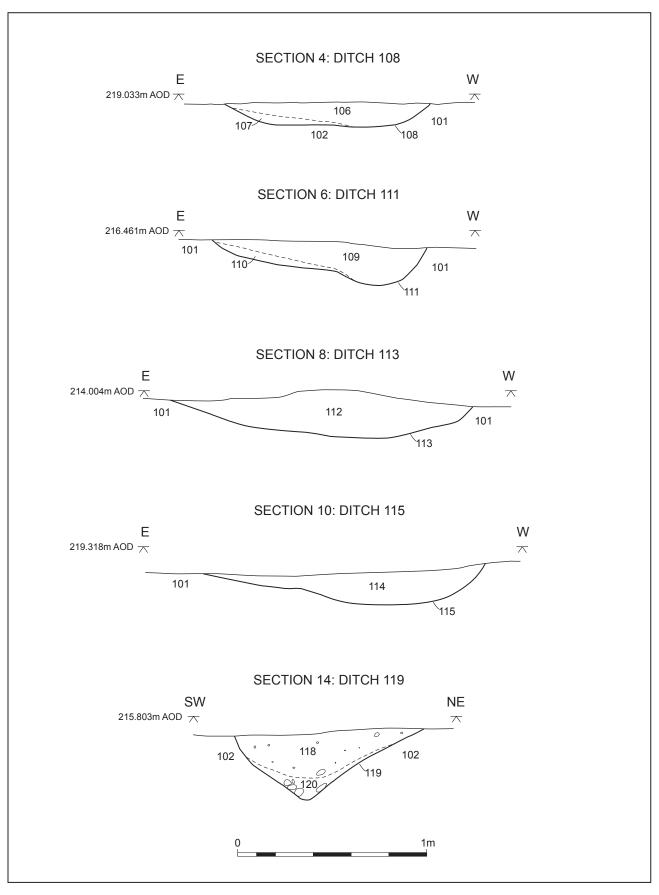
Location of the site

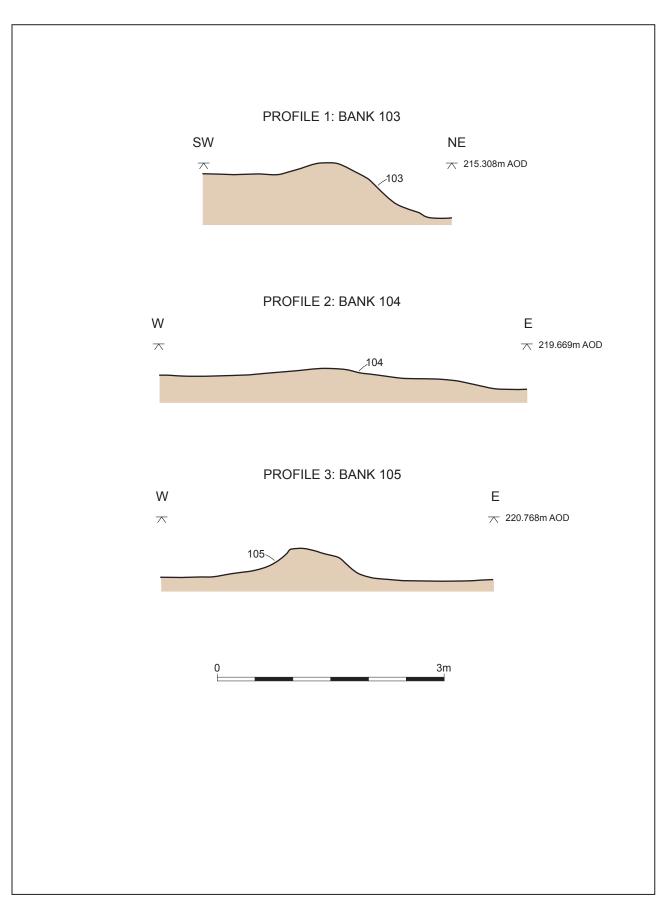
Figure 1



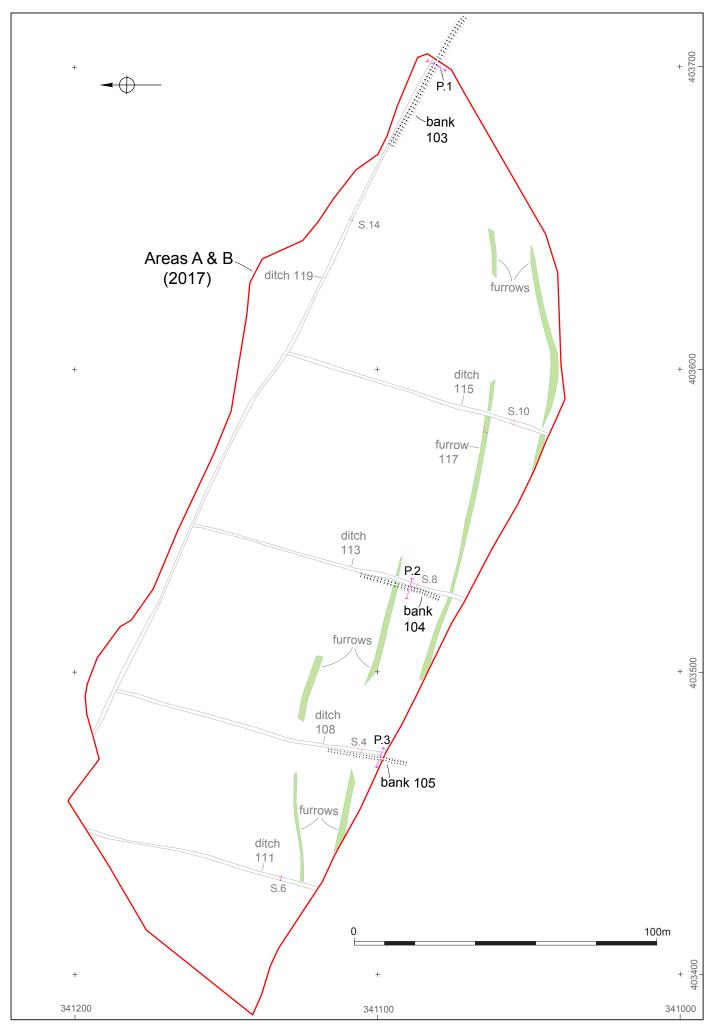
Plan of sub-surface features in Areas A and B

Figure 2





Profiles of earthwork banks 103, 104 and 105



Plan of combined earthwork and watching brief surveys, showing ditches and associated banks Figure 5

Plates



Plate 1. The site prior to groundworks. View west.



Plate 2. Bank 103 and ditch 119. View west. 1m scale.



Plate 3. Heavily truncated bank 104. View northeast. 1m scale.



Plate 4. Truncated bank 105. View northeast. 1m scale.



Plate 5. The possible Holloway identified as a disused quarry ramp with edge protection bunds. View southeast.



Plate 6. The possible Holloway identified as a disused quarry ramp with edge protection bunds. View northwest.



Plate 7. East facing section of furrow 117. Scale 1m.



Plate 8. Southeast facing section of field boundary ditch 119. Scale 0.4m



Plate 9. General shot of site strip, with ditch 119 visible to the north. View southeast. Scales 1m.



Plate 10. Northeast facing section of field boundary ditch 108. Scale 0.4m



Plate 11. Northeast facing section of field boundary ditch 111. Scale 0.4m



Plate 12. Northeast facing section of field boundary ditch 113. 1m scale.



Plate 13. Northeast facing section of field boundary ditch 115. 1m scale.

Appendix 1 Deposit descriptions

Site area: Areas A and B

Context summary: Context Feature	Context type	Description	Height/ depth	Deposit description
100	Layer	Topsoil	0.42m - 0.21m	Friable Dark blackish brown clay loam
101	Layer	Subsoil		soft but cohesive dark brownish orange clay silt
102	Layer	Natural		soft and loose mid to light brownish orange sand and gravels
103	Layer	Possible earthwork bank in north of site.		
104	Layer	Earthwork bank associated with field boundary.		
105	Layer	Earthwork bank associated with field boundary.		
106	Fill	Dark fill of ditch 108	0.14m depth 1.11m width 1.00m ex length	Soft dark blackish brown sandy loam
107	Fill	Fill of ditch 108	0.05m depth 0.63m width 1.00m ex length	Soft light orangey yellow clay sand
108	Cut	Cut of post-med field boundary ditch.	0.14m depth 1.11m width 1.00m slot	
109	Fill	Dark fill of ditch 111.	0.24m depth 1.14m width 1.00m ex length	soft dark blackish brown sandy loam
110	Fill	Fill of ditch 111.	0.05m depth 0.75m width 1.00m ex length	soft mid orangey yellow clay sand

111		Cut	Cut of post-med field boundary ditch.	0.24m depth 1.14m width 1.00m ex length	
112		Fill	Fill of ditch 113	0.26m depth 1.59m width 1.00m ex length	soft dark blackish brown sandy loam
113		Cut	cut of post-med field boundary ditch.	0.26m depth 1.59m width 1.00m ex length	
114		Fill	fill of ditch 115	0.17m depth 1.51m width 1.00m ex length	soft dark blackish brown sandy loam
115		Cut	cut of post med field boundary ditch.	0.17m depth 1.51m width 1.00m ex length	
116		Fill	fill of furrow 117	0.15m depth 1.36m width 1.00m ex slot	loose mid brownish grey silty sand
117		Cut	cut of furrow in south of area	0.15m width 1.36m width 1.00m ex length	
118	Ditch	Fill	Fill of post med boundary ditch 119	see survey	soft dark greyish brown silty sand
119	Ditch	Cut	cut of E-W boundary ditch	see survey	
120	Ditch	Fill	Basal fill of ditch 119	0.12m depth 0.78m width 1.00m length ex	compact dark yellowish brown, silty clay

Appendix 2 Technical information The archive (Worcestershire Archaeology Project code: P5049)

The archive consists of:

- 5 Field progress reports AS2
- 113 Digital photographs
- 15 Scale drawings
- 1 Digital copy of site archive
- 1 CD-Rom/DVDs
- 1 Copy of this report (bound hard copy)

The project archive is intended to be placed at:

The Potteries Museum and Art Gallery Bethesda Street Hanley Stoke on Trent ST1 3DW Tel: Stoke on Trent (01782) 232323