Suffolk County Council

Worlington Quarry, 2011 Phase - Part 2, Worlington, WGN 038

Archaeological Monitoring Report

SCCAS Report No. 2012/011

Client: Frimstone Ltd

Author: Rob Brooks

March/2012

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Report Date: March/2012

HER Information

Report Number:	**2012/011**
Site Name:	**Worlington Quarry**
Planning Application No:	**F/2004/0227/CCA**
Date of Fieldwork:	**28th September to 12th October, 2011**
Grid Reference:	**TL 6967 7152**
Client/Funding Body:	**Frimstone Ltd**
Client Reference:	**N/A**
Curatorial Officer:	**Edward Martin**
Project Officer:	**Rob Brooks**
Oasis Reference:	**suffolkc1-111888**
Site Code:	**WGN 038**

Digital report submitted to Archaeological Data Service:
http://ads.ahds.ac.uk/catalogue/library/greylit

Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Team alone. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk County Council's archaeological contracting services cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

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Date: 23/03/2012

Approved By: Jo Caruth
Position: Senior Project Officer
Date: 23/03/2012
Signed:

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Monitoring of a second topsoil strip at Worlington Quarry, Worlington, in Suffolk, revealed evidence of an undated ditch and two undated pits/hearths. The pits/hearths are possibly extensions of the later prehistoric/Bronze Age activity seen in the general area.

Two large spreads of material were also recorded. These were largely natural, although one was also derived from a pig wallow and high levels of modern disturbance. Excluding this the natural subsoil was largely undisturbed.

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Limit of Excavation

Features

Break of Slope

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Natural Features

Sondages/Machine Strip

Intrusion/Truncation

Illustrated Section S.14

Cut Number 0008

Archaeological Features

Sections

Limit of Excavation

Cut

Modern Cut

Cut - Conjectured

Deposit Horizon

Deposit Horizon - Conjectured

Intrusion/Truncation

Top of Natural

Top Surface

Break in Section

Cut Number 0008

Deposit Number 0007

Ordnance Datum 18.45m OD

1. Introduction

A monitoring was carried out at Worlington Quarry, Worlington (Fig. 1) during topsoil stripping in advance of an ongoing programme of sand and gravel extraction (Planning Application F/2004/0227/CCA) by the client Frimstone Ltd. The work was carried out from 28th September to 12th October 2011 and was undertaken in accordance with a Brief and Specification produced by Edward Martin (Suffolk County Council Archaeology Service, Conservation Team (SCCAS/CT), Appendix 1).

Worlington Quarry is located in West Suffolk, just north of Red Lodge and south of Worlington village, fewer than three miles south-west from Mildenhall. Three previous phases of monitoring have occurred in this phase of quarrying, in 2009, 2010 and in April-May 2011 (Fig. 1).

2. Geology and topography

The site's geology is made up of superficial river terrace deposits overlying Holywell nodular chalk formation and new pit chalk formation bedrock (BGS, 2011). On site this comprised mid yellow-orange sand and gravel deposits, beneath which is chalk bedrock, although this wasn't uncovered during this phase of topsoil stripping.

The site lies close to the 15m contour and was fairly level, although there was a slope down from the north-east to the south-west corner. The highest points, at the north-east corners were measured at 14.69m and 14.43m above the Ordnance Datum, with the lowest point in the south-west corner recorded at 12.88m.

3. Archaeology and historical background

The development area has been previously identified as having potential for widespread Bronze Age occupation. A Bronze Age barrow (WGN 003) lies to the east of Site WGN 034 (Fig. 1), and a further four barrows (BTM 012, BTM 013, BTM 027 and BTM 028) are recorded 1.2 km to the east on Chalk Hill. Saxon burials (WGN 013) and a possible Roman villa (BTM 026) are also recorded on this raised area. The evaluation of Phases 1 and 2 of the quarry (WGN 028), carried out in 2004, identified a scatter of pits dating to the Bronze and Iron Age (Everett, 2004). Site WGN 032, lying immediately to the north-west of site WGN 034, was evaluated in early 2008 and encountered no archaeological remains.

The Phase 3 extraction area had been evaluated in 2008 (WGN 034, Fig. 1) and three stages of monitoring followed this in 2009, 2010 and 2011 (Part 1). The evaluation revealed sparse archaeological remains of probable prehistoric date and a small quantity of later Bronze Age flints. The findings indicated an absence of settlement-related activity and suggested that use of the land was low-level and infrequent (Muldowney and Muldowney, 2009). The 2009 monitoring revealed a single, shallow and undated pit, whilst the 2010 monitoring uncovered a small Late Neolithic/Early Bronze Age flint-working hollow with sherds of three separate Beaker vessels and a large quantity of worked and burnt flints (Muldowney, 2009 and 2010). The first part of monitoring in 2011 revealed evidence of two pits and one hearth, believed to be of later prehistoric date, which between them contained two struck flints, several heated flints and charcoal. Four large modern pits were also recorded and partially excavated and are believed to relate to farming or quarrying activities (Brooks, 2011).

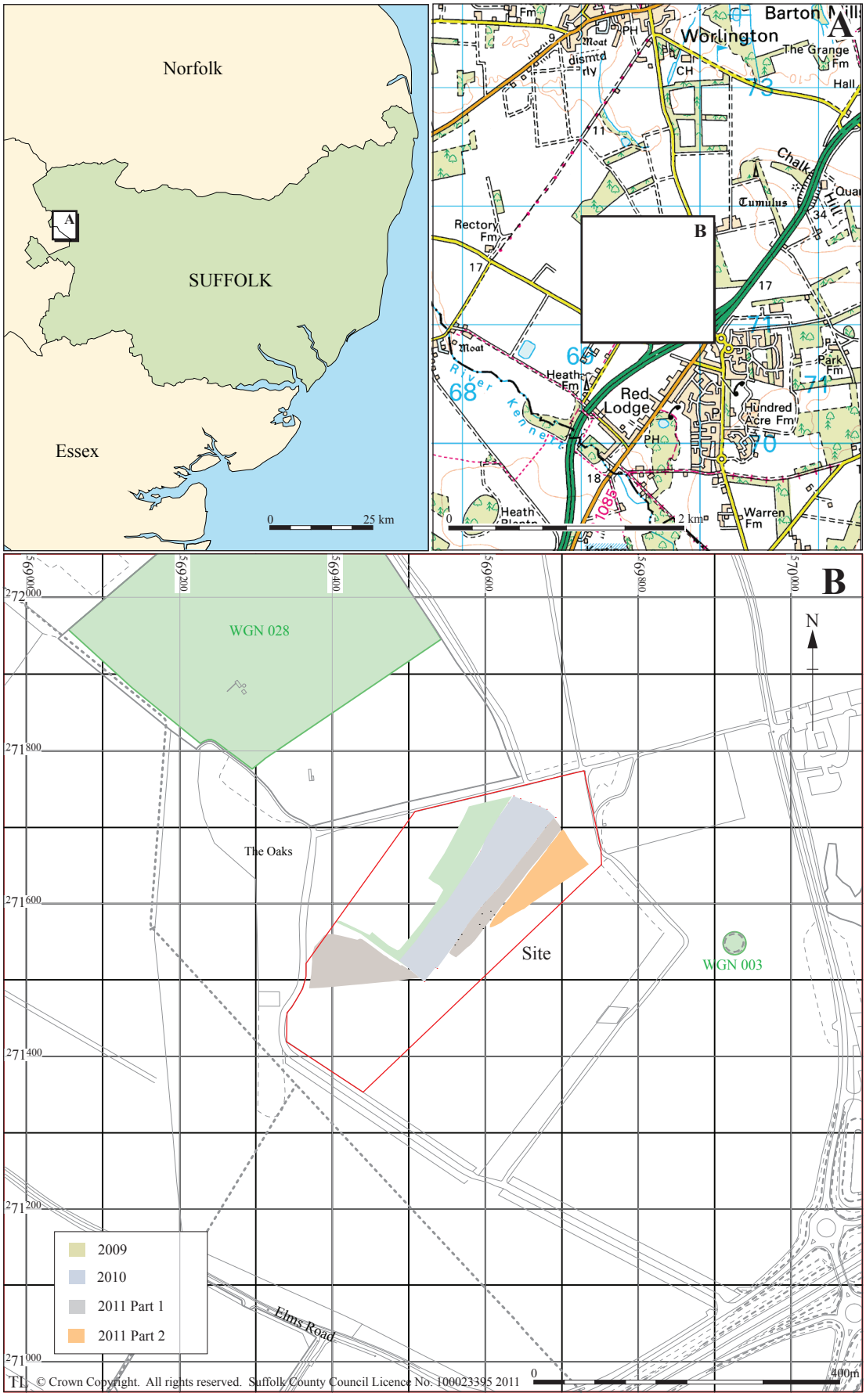

Figure 1. Site location (red), showing monitoring phases and HER entries mentioned in the text (green)

4. Methodology

A triangular area (Strip 3) was stripped of topsoil to the underlying geology using a machine equipped with a toothless bucket (Fig. 2). It was recorded as Strip 3 to differentiate it from the two earlier areas monitored earlier in 2011. These were recorded as Strips 1 and 2, and were written up in a separate report (SCCAS Report No. 2011/068, Brooks, 2011). The features that were uncovered in Strip 3 were excavated by hand and recorded in a single continuous numbering system, starting from 0350. Feature 0350 was excavated at its terminus, with another section being excavated (although not recorded) for its environmental sample, whilst features 0352 and 0354 were 50% excavated. They were drawn in section at a scale of 1:10 and in plan at 1:20. Environmental bulk samples were taken from all of the cut features. Two non-archaeological hollows were encountered during the monitoring and recorded as 0356 and 0357. The first of these was partially excavated by machine as the fill was believed to be modern. Digital photographs were taken of the features at 314 x 314dpi.

The boundaries of the site and the location of features were plotted using a Leica GPS1200 Rover system. This was set to be accurate to under 0.05m. Processing of these results was carried out off-site using a combination of LisCAD, MapInfo and AutoCAD 2009.

Site data has been input onto the MS Access database and recorded using the County Historic Environment Record code WGN 038. An OASIS form has been completed for the project (reference no. suffolkc1-111888, Appendix 2) and a digital copy of the report submitted for inclusion on the Archaeology Data Service database (http://ads.ahds.ac.uk/catalogue/library/greylit). The site archive is kept in the main store of Suffolk County Council Archaeological Service at Bury St Edmunds under HER code WGN 038.

5. Results

5.1 Introduction

Initially 0.3-0.4m of mid-dark brownish-grey silty-sand topsoil and 0.1m of dark greyish-black silty-sand subsoil with yellow sand lenses were stripped off the site. This uncovered the mottled pale yellow and mid orange sand and gravel deposits that made up the superficial geology in the area. Cutting this were the recorded contexts, comprising ditch 0350, pits 0352 and 0354, and spreads 0356 and 0357 (Figs. 2 and 3, Appendix 3).

5.2 Results

Ditch 0350

This was a short length of curvilinear ditch which was shallow and ran into spread 0356, which appeared to cut the ditch. It had gently sloping concave sides and a concave base and measured 0.65m wide x 0.25m deep. Fill 0351 was mid-dark orangish-brown silty-sand and produced no finds. The environmental soil sample from 0351 produced limited evidence of combustion and a possible wheat grain. It also suggested that the remains had been exposed for some time before being placed in the ditch.

Spreads 0356 and 0357

Two large spreads of discoloured sand were recorded as 0356 (at northern end of site) and 0357 (at southern corner of site). Spread 0357 was a naturally-derived deposit of brown sand and stones that was sterile of finds and measured 23m (SW-NE) x 9m (NW-SE). Similar sterile deposits were also recorded in the earlier phase of the 2011 monitoring (Brooks, 2011). Spread 0356 was much larger at 42m (SW-NE) x 20m (SE-NW), with an irregular oval shape. Whilst parts of it appeared to be natural and similar to 0356 (the area where features 0352 and 0354 were excavated), much of the material was derived from modern activity (including the area cutting ditch 0350). This was partly a result of being positioned immediately under a pig wallow, which had resulted in heavy leaching and discolouration of the natural subsoil. However, the area had also been machine disturbed. This was shown by the presence of two machine bucket scrapes at the south-west end of the spread, as well as the heavily mixed deposits

encountered within two sondages excavated into the spread. The second sondage revealed 6 redeposited tree stumps at its base as well as redeposited topsoil.

Pits/hearths 0352 and 0354

These were two small pits/hearths that were just within the limits of the sterile natural material of spread 0356, and measured up to 0.32m x 0.72m x 0.07-0.3m deep. Both were irregularly shaped in plan, with the south-east side of feature 0352 being largely indistinguishable from the surrounding spread. In section cut 0352 had a partially stepped profile, concave sides and base, whilst cut 0354 was very shallow with concave sides and base. Fill 0353 (from cut 0352) and fill 0355 (from cut 0354) consisted of dark grey/black silty-sand, with small heated angular flints. The samples from these features contained charcoal; evidence of combustion at a high temperature. The samples are also closely comparable to the results from the earlier phase of monitoring, but no further conclusions could be drawn from them.

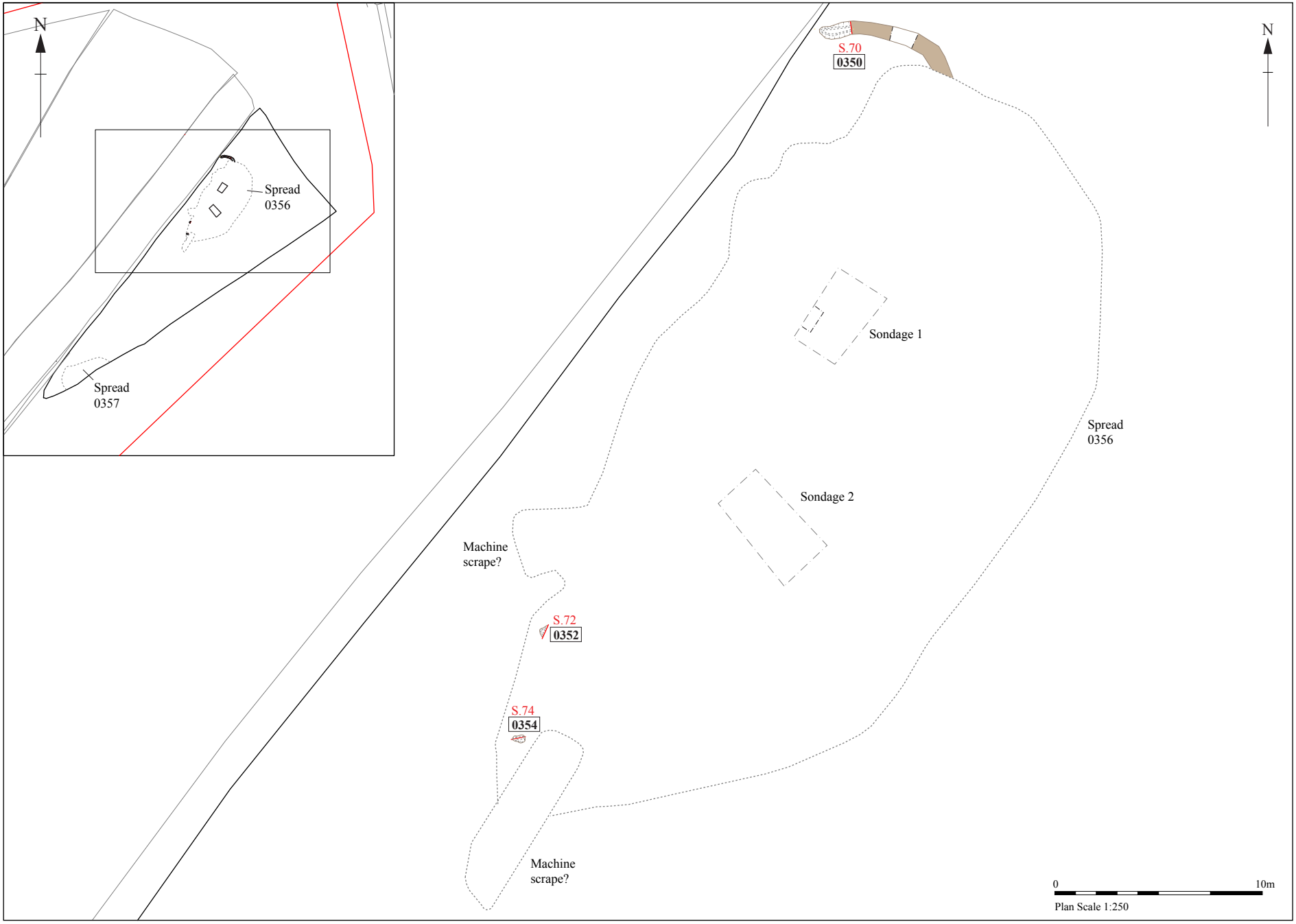

Figure 2. Feature plan

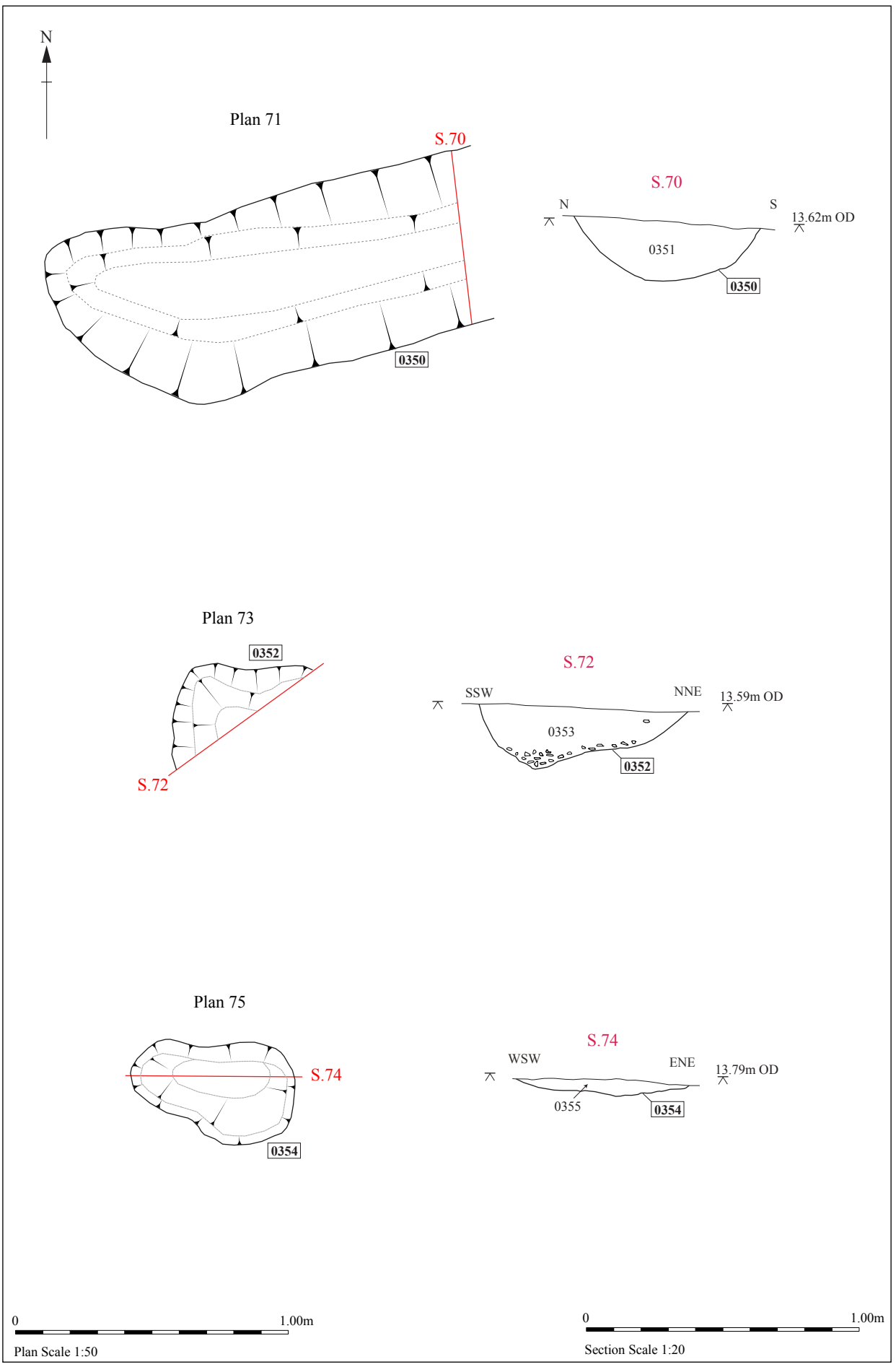

Figure 3. Plans and sections

6. Environmental evidence

Val Fryer

6.1 Introduction and method statement

Samples for the evaluation of the content and preservation of the plant macrofossil assemblages were taken from fills 0351 (ditch 0350), 0353 and 0355 (pits/hearths 0352 and 0354, respectively).

The samples were bulk floated by SCCAS and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Table 1. Nomenclature within the table follows Stace (1997). All plant remains were charred. Modern fibrous roots, seeds and fungal sclerotia were also recorded within all three assemblages.

6.2 Results

Although two of the flots (Sample 11 from ?hearth [0352] and Sample 12 from ?hearth 0354) were relatively large (0.3 and 0.8 litres in volume respectively), the assemblages were largely composed of charcoal charred wood fragments, with other plant macrofossils being exceedingly scarce. However, Sample 10 (from ditch 0350) did contain a single, possible, poorly preserved wheat (*Triticum* sp.) grain and the assemblage from Sample 11 included a seed of black bindweed (*Fallopia convolvulus*). The latter sample also contained an indeterminate seed and two small fragments of possible fruit stone or nutshell. The charcoal/charred wood fragments within the assemblage from Sample 10 were very comminuted, possibly suggesting that the material had been exposed for some considerable period prior to inclusion within the ditch fill. The charcoal within the possible hearth assemblages displayed evidence for very high temperatures of combustion; tarry globules were adhering to many fragments within Sample 11 and the material within Sample 12 had a very distinctive flaked appearance.

Other remains were scarce, although Samples 10 and 11 both included 'dribbles' of black tarry material, all of which were probably derived from the combustion of organic remains at very high temperatures.

Sample No.	**10**	**11**	**12**
OP No.	**0351**	**0353**	**0355**
Feature No.	**0350**	**0352**	**0354**
Feature type	**Ditch**	**?Hearth**	**?Hearth**
Plant macrofossils			
Triticum sp. (grain)	xcf		
Fallopia convolvulus (L.)A.Love		x	
Charcoal <2mm	xxx	xxxx	xxxx
Charcoal >2mm	x	xxx	xxxx
Charcoal >5mm		x	xxx
Charcoal >10mm			xx
Charred root/stem	x	x	
Indet.fruit/nut fragment		x	
Indet.seed		x	
Other remains			
Black porous material	x		
Black tarry material	xx	x	
Ferrous concretions	x		
Mineralised faecal material	xcf		
Small coal frags.		x	
Sample volume (litres)	**40**	**35**	**7**
Volume of flot (litres)	**<0.1**	**0.3**	**0.8**
% flot sorted	**100%**	**50%**	**12.50%**

Table 1. Charred plant macrofossils and other remains from Worlington Quarry, 2011 Phase, Part 2/Strip 3

Key to Table
x = 1 - 10 specimens
xx = 11 - 50 specimens
xxx = 51 - 100 specimens
xxxx = 100+ specimens
cf = compare

6.3 Conclusions and recommendations for further work

In summary, the results from this latest phase of investigations at Worlington are closely paralleled by those recorded during the Phase 3 investigations (Fryer in Brooks, 2011), and it would appear that the assemblages are again derived from activities involving extremely high temperatures of combustion. However, there is still little indication about why such temperatures were being achieved and for what purpose. As the assemblages are so limited in composition, further analysis is not recommended, although identification of the charcoal may provide data regarding the status of the environment and the utilisation of local resources.

Although to date, the assemblages from this site have been limited, it is strongly recommended that if further interventions are planned within the quarry area, additional plant macrofossil samples of approximately 20 – 40 litres in volume should be taken from all well-sealed and dated contexts recorded during excavation.

7. Discussion and conclusions

This phase of works appears to have uncovered similar remains to those recorded in the first phase of monitoring in 2011 (which uncovered Neolithic or Early Bronze Age features). These latest pits/hearths and ditch therefore may also have been of probable prehistoric date, containing burnt material which could be associated with occupation, or potentially industry of some sort, judging by the level of combustion. Whilst the activity was probably not intensive, or was perhaps ephemeral, it hints at human settlement in the wider area, perhaps with a focus towards the sites to the east. The nature of the archaeology encountered on this site is still somewhat unclear at the moment, with evidence only indicating localised fires (as well as use of flint tools in the earlier monitoring). Any further works in the quarry and wider area may provide more evidence on the nature and extent of the prehistoric activity. The presence of ditch 0350 indicates a new and as yet poorly understood phase of occupation on the site.

8. Archive deposition

Paper and photographic archive: SCCAS Bury St Edmunds

9. Acknowledgements

The monitoring was carried out by Rob Brooks from Suffolk County Council Archaeological Service, Field Team. The project was directed by Rob Brooks, and managed by Jo Caruth.

The post-excavation was managed by Richenda Goffin. The production of site plans and sections was carried out by Gemma Adams. Soil samples were processed by Anna West and analysed by Val Fryer. The report was checked by Richenda Goffin.

10. Bibliography

BGS, 2011, Information obtained from *http://www.bgs.ac.uk/products/digitalmaps/data_625k.html* and reproduced with the permission of the British Geological Survey ©NERC. All rights Reserved.

Brooks, 2011, *Worlington Quarry, 2011 Phase, Worlington WGN 038,* SCCAS Report No. 20011/068

Stace, C., 1997, *New Flora of the British Isles*. Second edition, Cambridge: Cambridge University Press

Appendix 1. Brief and specification

SUFFOLK COUNTY COUNCIL
ARCHAEOLOGICAL SERVICE
CONSERVATION TEAM

Brief and Specification for Archaeological Monitoring
(continuous observation of soil-stripping operations)

MINERAL EXTRACTION SITE,
BAY FARM, WORLINGTON
Phases 3, 5 and 7

Although this document sets out the work that will need to be done by an archaeological contractor, the developer should be aware that some of its provisions may impinge upon the general working practices of the development and may have financial implications. The commissioning body may also have Health & Safety responsibilities, see para 1.7

1. Background

1.1 Planning permission has been given for mineral extraction to take place on the above site (F/2004/0227/CCA).

1.2 The area lies adjacent to a known archaeological site: a Neolithic and Bronze Age burial mound called Swale's Tumulus (Suffolk Historic Environment Record no. WGN 003).

1.3 A desk-top assessment of the area was carried out by the Archaeological Service of Suffolk County Council in 2003 (report no. 2003/3) followed by a field evaluation in 2004 (report no. 2004/147). This demonstrated that there was a scattered presence of features of Bronze Age and Iron Age date. Subsequent evaluations (reports 2008/93 and 2008/222) have shown a low level of prehistoric activity. The scattered nature of the prehistoric features means that activity areas could be missed by the evaluation trenches and there is therefore a need to monitor the topsoil-stripping operations.

1.4 As the next stage in complying with the planning condition the developer has requested a brief and specification for the archaeological monitoring of the soil-stripping operations.

1.5 There is a presumption that the archaeological work specified for the whole area will be undertaken by the same body, whether the fieldwork takes place in phases or not. There is similarly a presumption that further analysis and post-excavation work to final report stage will be carried through by the excavating body. Any variation from this principle would require justification.

1.6 All arrangements for field excavation of the site, the timing of the work, and access to the site, are to be negotiated with the commissioning body.

1.7 Before any archaeological site work can commence it is the responsibility of the developer to provide the archaeological contractor with either the contaminated land report for the site or a written statement that there is no contamination.

2. Brief for the Archaeological Project

2.1 In the area defined on the attached map, archaeological monitoring, as specified in Section 3, is to be carried out prior to any extraction of minerals or other development works. With prior agreement, this work may be carried out phased sections.

2.2 The objective of the monitoring will be :
a) to enable the identification and evaluation of potentially significant archaeological features or deposits (see Section 3);
b) to identify, excavate and record features and deposits of lesser archaeological significance (see Section 4).

2.3 The academic objective will centre upon the high potential for this site to produce evidence for prehistoric settlement evidence.

2.4 This project will be carried through in a manner broadly consistent with English Heritage's *Management of Archaeological Projects,* 1991 (*MAP2*). Excavation is to be followed by the preparation of a full archive, and an assessment of potential for analysis. Analysis and final report preparation will follow assessment and will be the subject of a further brief and updated project design.

2.5 In accordance with the standards and guidance produced by the Institute of Field Archaeologists this brief should not be considered sufficient to enable the total execution of the project. A Project Design or Written Scheme of Investigation (PD/WSI) based upon this brief and the accompanying outline specification of minimum requirements, is an essential requirement. This must be submitted by the developers, or their agent, to the Conservation Team of the Archaeological Service of Suffolk County Council (Shire Hall, Bury St Edmunds IP33 2AR; telephone/fax: 01284 352443) for approval. The work must not commence until this office has approved both the archaeological contractor as suitable to undertake the work, and the PD/WSI as satisfactory. The PD/WSI will *provide the basis for measurable standards* and will be used to establish whether the requirements of the planning condition will be adequately met; an important aspect of the PD/WSI will be an assessment of the project in relation to the Regional Research Framework (*East Anglian Archaeology* Occasional Papers 3, 1997, 'Research and Archaeology: A Framework for the Eastern Counties, 1. resource assessment', and 8, 2000,

'Research and Archaeology: A Framework for the Eastern Counties, 2. research agenda and strategy').

2.6 The developer or his archaeologist will give the Conservation Team of Suffolk County Council's Archaeological Service five working days notice of the commencement of ground works on the site, in order that the work of the archaeological contractor may be monitored. The method and form of development will also be monitored to ensure that it conforms to previously agreed locations and techniques upon which this brief is based.

3. Brief for Archaeological Monitoring of Topsoil-Stripping

3.1 To carry out the monitoring work the developer will appoint an archaeologist (the archaeological contractor) who must be approved by the Conservation Team of Suffolk County Council's Archaeological Service (SCCAS) - see 2.5 above.

3.2 The developer will give the appointed archaeological contractor three weeks notice (or any other mutually agreed period of notice) of the commencement of site works.

3.3 The topsoil-stripping operations (by the developer or the archaeological contractor) will be carried out using a back-acting machine with a toothless bucket. The depth and method of stripping will need to be agreed in advance with the Conservation Team of SCCAS. Machinery will not cross the stripped area until any possible archaeology has been assessed and fully recorded. Any variation from this will need to be agreed with the Conservation Team.

3.4 As areas are stripped, they will be assessed for further archaeological work. The options will include:

1. A need for further stripping of subsoil layers such hill-wash or other masking deposits.
2. Evaluation of potentially significant archaeological features or deposits. The scope of this work is to be agreed between the Conservation Team of SCCAS and the developer (or his consultant).
   N.B. Further archaeological work arising from this evaluation may require a new Brief and Specification from the Conservation Team of SCCAS.
3. Small-scale archaeological excavation to clear features and deposits of lesser significance (e.g. isolated features or small clusters of features).
   The minimum standards for this work are set out below in Section 4.
4. Consideration by the developer of a redesign of the development to avoid major archaeological features.

The decision regarding further work will need to be approved by the Conservation Team of SCCAS.

4. Specification for Small-scale Archaeological Excavation
(See Section 3.4.3)

The excavation methodology is to be agreed in detail before the project commences, certain minimum criteria will be required

4.1 Fully excavate all features that are, or could be interpreted as, structural. Post-holes, and pits that may be interpreted as post-holes, must be examined in section and then fully excavated. Fabricated surfaces within the excavation area(e.g. yards & floors) must be fully exposed and cleaned.
Any variation from this practice will need to be agreed with the Conservation Team of SCCAS.

4.2 All other features must be sufficiently examined to establish, where possible, their date and function. For guidance:

a) A minimum of 50% of the fills of the general features is be excavated. Note that it is likely that prehistoric features e.g. especially pits, are likely to require full excavation.

b) Between 10% and 20% of the fills of substantial linear features (ditches etc) are to be excavated, the samples must be representative of the available length of the feature and must take into account any variations in the shape or fill of the feature and any concentrations of artefacts.

Any variations from these practices will need to be agreed with the Conservation Team of SCCAS.

4.3 Collect and prepare environmental samples (by sieving or flotation as appropriate). The Project Design must provide details of the sampling strategies for retrieving artefacts, biological remains (for palaeoenvironmental and palaeoeconomic investigations), and samples of sediments and/or soils (for micromorphological and other pedological/sedimentological analyses. Advice on the appropriateness of the proposed strategies will be sought from the English Heritage Regional Adviser for Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy and Wiltshire 1994) is available from the Conservation Team of SCCAS.

4.4 A finds recovery policy is to be agreed before the project commences and should form part of the Project Design. The use of a metal detector will form an essential part of the finds recovery strategy. The sieving of occupation levels and building fills will be expected.

4.5 All finds will be collected and processed. No discard policy will be considered until the whole body of finds has been evaluated.

4.6 All artefacts to be cleaned and processed concurrently with the excavation, so that the results can inform decision-making on the excavation.

4.7 Metal artefacts must be stored and managed in accordance with *UK Institute of Conservators Guidelines* and evaluated for significant dating and cultural implications before despatch to a conservation laboratory within 4 weeks of excavation.

4.8 Human remains are to be treated at all stages with care and respect, and are to be dealt with in accordance with the law. They must be recorded *in situ* and subsequently lifted, packed and marked to standards compatible with those described in the Institute of Field Archaeologists' Technical Paper 13 *Excavation and post-excavation treatment of Cremated and Inhumed Human Remains*, by McKinley & Roberts. Proposals for the final disposition of remains following study and analysis will be required in the Project Design.

4.9 Plans of the archaeological features on the site should normally be drawn at 1:20 or 1:50, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 again depending on the complexity to be recorded. Any variations from this must be agreed with the Conservation Team of SCCAS.

4.10 A photographic record of the work is to be made, consisting of both monochrome photographs and colour transparencies.

4.11 Excavation record keeping is to be consistent with the requirements of Suffolk County Council's Sites and Monuments Record (SMR) and be compatible with its archive. Methods must be agreed with the Conservation Team of SCCAS.

5. General Management

5.1 A timetable for all stages of the project must be agreed before the first stage of work commences.

5.2 Monitoring of the archaeological work will be undertaken by the Conservation Team of SCCAS.
Where projects require an unusual amount of monitoring, the Conservation Team reserve the right to make an 'at-cost' charge for monitoring (currently at a daily rate of £150). A decision on the monitoring required will be made by the Conservation Team on submission of the accepted Project Design and will be reviewed during the course of the project. Any decision to charge for monitoring will be notified to the developer or his agent(s).

5.3 The composition of the project staff must be detailed and agreed (this is to include any subcontractors). For the site director and other staff likely to have a major responsibility for the post-excavation processing of this site there must be a statement of their responsibilities for post-excavation work on other archaeological sites.

5.4 A general Health and Safety Policy must be provided, with a detailed risk assessment and management strategy for this particular site.

5.5 The Project Design must include proposed security measures to protect the site and both excavated and unexcavated finds from vandalism and theft.

5.6 Provision for the reinstatement of the ground and the filling of dangerous holes must be detailed in the Project Design.

5.7 No initial survey to detect public utility or other services has taken place. The responsibility for this rests with the archaeological contractor.

5.8 The Institute of Field Archaeologists' *Standard and Guidance for Archaeological Watching Briefs* and for *Excavations* should be used for additional guidance in the execution of the project and in the drawing up of the report.

6. Archive Requirements

6.1 Within four weeks of the end of field-work a timetable for post-excavation work must be produced. Following this a written statement of progress on post -excavation work whether archive, assessment, analysis or final report writing will be required at three monthly intervals.

6.2 An archive of all records and finds is to be prepared consistent with the principles of English Heritage's *Management of Archaeological Projects*, 1991 (*MAP2*), particularly Appendix 3. However, the detail of the archive is to be fuller than that implied in *MAP2* Appendix 3.2.1. The archive is to be sufficiently detailed to allow comprehension and further interpretation of the site should the project not proceed to detailed analysis and final report preparation. It must be adequate to perform the function of a final archive for lodgement in the County SMR or museum.

6.3 A clear statement of the form, intended content, and standards of the archive is to be submitted for approval as an essential requirement of the Project Design (see 2.5).

6.4 The site archive quoted at *MAP2* Appendix 3, must satisfy the standard set by the *Guideline for the preparation of site archives and assessments of all finds other than fired clay vessels* of the Roman Finds Group and the Finds Research Group AD700-1700 (1993).

6.5 Pottery should be recorded and archived to a standard comparable with 6.3 above, i.e. *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication,* Prehistoric Ceramics Research Group Occasional Paper 1 (1991, rev 1997), the *Guidelines for the archiving of Roman Pottery*, Study Group for Roman Pottery (ed. M G Darling 1994) and the *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics,* Medieval Pottery Research Group Occasional Paper 2 (2001).

6.6 All coins must be identified and listed as a minimum archive requirement.

6.7 The data recording methods and conventions used must be consistent with, and approved by, the County SMR. All record drawings of excavated

evidence are to be presented in drawn up form, with overall site plans. All records must be on an archivally stable and suitable base.

6.8 A complete copy of the site record archive must be deposited with the County SMR within twelve months of the completion of fieldwork. It will then become publicly accessible.

6.9 Finds must be appropriately conserved and stored in accordance with the UK Institute of Conservators Guidelines.

6.10 The finds, as an indissoluble part of the full site archive, should be deposited with the County SMR or a museum in Suffolk which satisfies the requirements of the Museum and Galleries Commission. If this is not achievable for all or parts of the finds archive, then provision must be made for additional recording (e.g. photography, illustration and analysis) as appropriate. If the County SMR is the repository for finds there will be a charge made for storage, and it is presumed that this will also be true for storage of the archive in a museum.
A statement regarding the final destination of the finds must be included in the Project Design.

6.11 Where positive conclusions are drawn from a project, a summary report in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute for Archaeology* must be prepared and included in the project report, or submitted to the Conservation Team by the end of the calendar year in which the evaluation work takes place, whichever is the sooner.

7. Report Requirements

7.1 A report on the fieldwork and archive must be provided consistent with the principle of *MAP2*, particularly Appendix 4. The report must be integrated with the archive.

7.2 The objective account of the archaeological evidence must be clearly distinguished from its archaeological interpretation.

7.3 An important element of the report will be a description of the methodology.

7.4 Reports on specific areas of specialist study must include sufficient detail to permit assessment of potential for analysis, including tabulation of data by context, and must include non-technical summaries.

7.5 The report will give an opinion as to the potential and necessity for further analysis of the excavation data beyond the archive stage, and the suggested requirement for publication; it will refer to the Regional Research Framework (see above, 2.6). Further analysis will not be embarked upon until the primary fieldwork results are assessed and the need for further work is established.

Analysis and publication can be neither developed in detail nor costed in detail until this brief and specification is satisfied.

7.6 The assessment report must be presented within six months of the completion of fieldwork unless other arrangements are negotiated with the project sponsor and the Conservation Team of SCCAS.

7.7 At the start of work (immediately before fieldwork commences) an OASIS online record http://ads.ahds.ac.uk/project/oasis/ must be initiated and key fields completed on Details, Location and Creators forms.

7.8 All parts of the OASIS online form must be completed for submission to the SMR. This should include an uploaded pdf version of the entire report (a paper copy should also be included with the archive).

Specification by: Edward Martin

Suffolk County Council
Archaeological Service Conservation Team
Environment and Transport Department
Shire Hall
Bury St Edmunds
Suffolk IP33 2AR Tel: 01284 352442

Date: 24th April 2009 Reference: SpecMonWorlington4.doc

This brief and specification remains valid for 12 months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued.

If the work defined by this brief forms a part of a programme of archaeological work required by a Planning Condition, the results must be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority.

Appendix 2. OASIS form

OASIS ID: suffolkc1-111888

Project details

Project name	WGN 038 Worlington Quarry, 2011 Phase Part 2, Worlington
Short description of the project	Monitoring of a second topsoil strip at Worlington Quarry, Worlington, in Suffolk, revealed evidence of an undated ditch and two undated pits/hearths. The pits/hearths are possibly extensions of the later prehistoric/Bronze Age activity seen in the general area. Two large spreads of material were also recorded. These were largely natural, although one was also derived from a pig wallow and high levels of modern disturbance. Excluding this the natural subsoil was largely undisturbed.
Project dates	Start: 28-09-2011 End: 12-10-2011
Previous/future work	Yes / Yes
Any associated project reference codes	WGN 038 - HER event no.
Any associated project reference codes	WGN 038 - Sitecode
Any associated project reference codes	F/2004/0227/CCA - Planning Application No.
Any associated project reference codes	2012/011 - Contracting Unit No.
Type of project	Recording project
Current Land use	Grassland Heathland 3 - Disturbed
Monument type	PITS Late Prehistoric
Monument type	HEARTHS Late Prehistoric
Monument type	DITCH Uncertain
Significant Finds	NONE None
Investigation type	'Watching Brief'
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	SUFFOLK FOREST HEATH WORLINGTON WGN 038, Worlington Quarry Monitoring, 2011 Phase- Part 2

Postcode	IP28
Study area	4389.00 Square metres
Site coordinates	TL 6967 7152 52.3150912080 0.489456311541 52 18 54 N 000 29 22 E Point
Height OD / Depth	Min: 12.90m Max: 14.70m

Project creators

Name of Organisation	Suffolk County Council Archaeological Service
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Edward Martin
Project director/manager	Jo Caruth
Project supervisor	Rob Brooks
Type of sponsor/funding body	Quarry
Name of sponsor/funding body	Frimstone Ltd

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Suffolk County Council Archaeological Service
Digital Archive ID	WGN 038
Digital Contents	'Survey','other'
Digital Media available	'Database','GIS','Images raster / digital photography','Survey','Text'
Paper Archive recipient	Suffolk County Council Archaeological Service
Paper Archive ID	WGN 038
Paper Contents	'other'
Paper Media available	'Correspondence','Plan','Report','Section','Context sheet'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Worlington Quarry, 2011 Phase- Part 2, Worlington, WGN 038, Archaeological Monitoring Report
Author(s)/Editor(s)	Brooks, R.
Other bibliographic details	SCCAS Report No. 2012/011
Date	2012

Issuer or publisher	SCCAS
Place of issue or publication	Bury St Edmunds
Description	A4, comb bound, white cover, in colour, with two appendices (also available as a pdf)
Entered by	Rob Brooks (rob.brooks@suffolk.gov.uk)
Entered on	23 March 2012

Appendix 3. Context list

Context Number		Feature Type	Category	Description	Interpretation	Length	Width	Depth
0350	0350	Ditch	Cut	Curvilinear in plan, aligned roughly E-W. 45-80° concave sides with gradually curving break of slope to base. Base is concave. Cut by large spread, or at least cannot be seen when it runs into it.	Sterile fill, but quite dark, though curvilinear shape suggests some antiquity. Almost certainly truncated by large spread 0356.		0.65	0.25
0351	0350	Ditch	Fill	Mid-dark orangish-brown sand. Friable compaction. Common small angular flints. Clear-diffuse horizon clarity. Basal/only fill of feature.			0.65	0.25
0352	0352	Pit/Heart	Cut	Circular/oval, but sides are irregular and very unclear. Alignment unclear. 45-75° concave sides that step in on northern side. Concave base. Cuts surrounding spread 0356.	Possibly a hearth, hence irregular profile and plan, but there is relatively little heating of the surrounding soil, so may have been a very small fire. Eastern half over-excavated due to feature's position in local spread. Seems to be dug into mid brown sand area of spread (which is sterile and gravelly) rather than the dark grey and natural patches of sand that partially make up 0356 (resulting from pig wallows/sheds and quarry test pits?).		0.76	0.3
0353	0352	Pit/Heart	Fill	Dark grey/black silty-sand. Friable-firm compaction. Common small heated flints throughout, with dense heated flints at base of feature. Common charcoal flecks. Sharp-diffuse horizon clarity. Basal/only fill of feature.	Hearth fill, hence charcoal and heated flints, as well as the occasionally diffuse horizon clarity.		0.76	0.3
0354	0354	Pit/Heart	Cut	Oval/irregular heavily disturbed plan. Aligned E-W. Shallow, with 30° concave sides. Imperceptible break of slope to base. Base is flat/slightly irregular. Cut into mid-dark brown sand spread 0356.	Possibly a hearth or a pit, but irregular shape and large surviving charcoal lumps in fill suggest it may be modern, as does its position within heavily disturbed spread 0356.	0.61	0.42	0.07
0355	0354	Pit/Heart	Fill	Dark grey/black silty-sand/charcoal mix/ Friable-firm compaction. Occasional small angular flints. Clear-diffuse (often disturbed) edges. Basal/only fill of feature.	Possibly hearth fill/fire remains, possibly of some antiquity, although size and robustness of charcoal suggests otherwise.	0.61	0.42	0.07

Context Number		Feature Type	Category	Description	Interpretation	Length	Width	Depth
0356	0355	Deposit	Other	Large spread of mid bluish-brown and dark greyish-brown silty-sand. Friable compaction. Frequent small angular flints found in places. Sterile of finds. This was partly oval in plan, but also had sub-square shapes emerging from it. Heavily disturbed in places. Two sondages excavated. One only excavated to 0.55m below ground level, revealing that the brown and grey-brown material was mixed and contained common decaying wood fragments. Second sondage excavated to full depth of spread, uncovering wooden fragments to base, including 6 redeposited tree trunks. Partially located underneath a pig wallow. There is one clearly machine-excavated scrape running through the spread at the south-west end, penetrating the full depth of the spread.	Partially made up of naturally-derived finds-sterile deposits, similar to those seen in earlier phase of 2011 monitoring. Sub-square areas are like the machine-excavated pits also seen in the earlier fieldwork. This is thought to be a mixture of naturally-derived material and disturbed material. Disturbed material partially derived from pig wallow, some from excavation of area which was associated with deposition of tree trunks and some derived from possible quarry deposit testing.	46.18	20.17	1.35
0357	0357	Deposit	Other	Mid bluish-brown silty-sand. Frequent small angular flints. Friable compation. Shape in plan is sub-circular, but runs under baulk so not entirely clear.	Naturally-derived deposit, similar to those excavated in earlier 2011 monitoring. Sterile of finds. Similar to 0356, but not disturbed.	22.83	8.96	

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