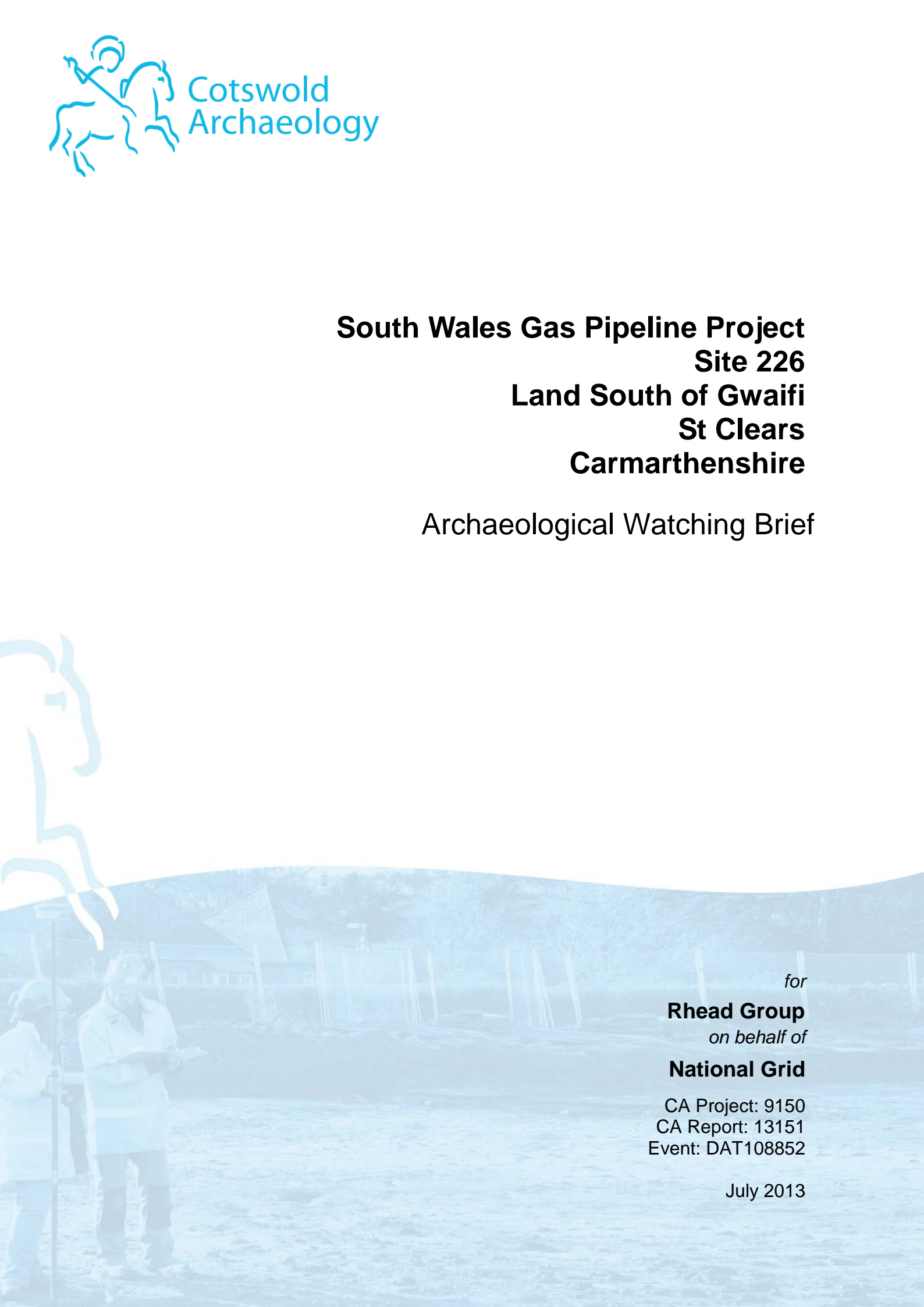


**South Wales Gas Pipeline Project  
Site 300  
Land at Nantyyetau  
Llandowror  
Carmarthenshire**

**Archaeological Watching Brief**



*for*  
**Rhead Group**  
*on behalf of*  
**National Grid**


CA Project: 9150  
CA Report: 13173  
Event: DAT108872

June 2013

# South Wales Gas Pipeline Project Site 300

## Archaeological Watching Brief

CA Project: 9150  
CA Report: 13173  
Event: DAT102846

prepared by	Jonathan Hart, Senior Publications Officer
date	5 June 2013
checked by	Karen E Walker, Post-Excavation Manager
date	4 July 2013
approved by	Martin Watts, Project Director, Head of Publications
signed	
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<b>Cirencester</b> Building 11 Kemble Enterprise Park Kemble, Cirencester Gloucestershire, GL7 6BQ t. 01285 771022 f. 01285 771033	<b>Milton Keynes</b> Unit 4 Cromwell Business Centre Howard Way, Newport Pagnell MK16 9QS t. 01908 218320	<b>Andover</b> Office 49 Basepoint Business Centre Caxton Close, Andover Hampshire, SP10 3FG t. 01264 326549
e. <a href="mailto:enquiries@cotswoldarchaeology.co.uk">enquiries@cotswoldarchaeology.co.uk</a>		

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Fig. 1 Site location plan (1:25,000)

Fig. 2 Plan and sections of burnt mound 146.3005 (1:50 and 1:20)

## GLOSSARY

CA – Cotswold Archaeology

CAP – Cambrian Archaeological Projects

CPAT – Clwyd Powys Archaeological Trust

DAT – Dyfed Archaeological Trust

GGAT - Glamorgan Gwent Archaeological Trust

FTP – Felindre to Brecon gas pipeline

HER – Historic Environment Record

MHA – Milford Haven to Aberdulais gas pipeline

NAL – Network Archaeology Ltd

NLMJV – Nacap Land & Marine Joint Venture

UPD – Updated Project Design

## SUMMARY

<b>Project Name:</b>	South Wales Gas Pipeline Project
<b>Location:</b>	Site 300, Land at Nantyietau, Llandowror, Carmarthenshire
<b>NGR:</b>	SN 2747 1457
<b>Type:</b>	Watching Brief
<b>Date:</b>	21–28 April 2006
<b>Location of Archive:</b>	To be deposited with RCAHMW (original paper archive) and Carmarthenshire Museum (digital copy of paper archive; accession number CAASG 2008.0282)
<b>Site Code:</b>	MHA06

An archaeological watching brief was undertaken by Cotswold Archaeology during groundworks associated with construction of gas pipelines (part of the South Wales high pressure gas pipeline scheme), between Milford-Haven and Aberdulais, and Felindre and Brecon, which were conducted between 2005 and 2007.

A stream-side burnt mound was identified but remained undated. It survived as a thin layer of burnt material within a natural hollow and continued beyond the pipeline easement as a thicker deposit seen in the section of the baulk. Although undated, other burnt mounds found along the pipeline have returned prehistoric radiocarbon dates, and this dating is likely to pertain in this instance.



## 1. INTRODUCTION

1.1 NACAP Land and Marine Joint Venture (NLMJV), on behalf of National Grid, commissioned RSK Environment (part of the RSK Group) to manage the archaeological works (non-invasive surveys, desk based assessment, evaluation, watching brief, and open area excavation) on a 216km-long section of pipeline from Milford Haven (Pembrokeshire) to Brecon (in Powys). The high pressure gas pipeline (part of the 316km-long pipeline route from Milford Haven to Tirley in Gloucestershire) was required to reinforce the gas transmission network. The archaeological work performed in advance of this pipeline was undertaken in a number of sections by a number of archaeological companies. The westernmost section of 122km, from Milford Haven to Aberdulais, was investigated by Cotswold Archaeology (CA; then Cotswold Archaeological Trust) during 2005–2007 with some additional excavation work carried out by Cambrian Archaeological Projects (CAP). The section of 89km, from Felindre to Brecon was investigated by CA during 2006–2007 and CAP during 2007. Assessment reports on the works were completed in January 2012 (NLM 2012a, 2012b) and the current reporting stage was commissioned in February 2013.

1.2 In April 2006 Cotswold Archaeology (CA) carried out an archaeological watching brief at Site 300, Land at Nant-y-tau, Llandowror, Carmarthenshire (centred on NGR: SN 2747 1457; Fig. 1). The objective of the watching brief was to record all archaeological remains exposed during the pipeline construction.

1.3 The watching brief was carried out in accordance with professional codes, standards and guidance documents (EH 1991; IfA 1999a, 1999b, 2001a, 2001b and IfA Wales 2008). The methodologies were laid out in an *Archaeological Management Plan* (AMP) (RSK 2006) and associated *Written Statements of Investigation* (WSIs) and *Method Statements*.

### ***The site***

1.4 The site is located within a field adjacent to a small tributary of the River Taf (Fig. 1). It lies at approximately 25m AOD on land that slopes down to the tributary. The underlying solid geology of the area is mapped as the Mydrim Shales Formation (Mudstone), overlain by Quaternary Till deposits (BGS 2013).

### ***Archaeological background***

- 1.5 No archaeological remains were identified within the site during the preliminary *Archaeology and Heritage Survey* (CA 2005). Place names indicating the presence of four standing stones (comprising two individual stones and a pair) are recorded by the Dyfed Archaeological Trust HER within 500m of the site (PRN11742, 11738 and 11737). A hillfort lies 600m north-east of the site (PRN 9832).
- 1.6 During the construction of the pipeline, a Bronze Age pit and undated features including a hearth, pits, postholes and a ditch were found 300m south-west of the site at Site 502 (CA 2013). In addition, burnt mounds were recorded along the length of the pipeline (Hart *et al.* forthcoming).

### ***Archaeological objectives***

- 1.7 The objectives of the archaeological works were:-
- to monitor groundworks, and to identify, investigate and record all significant buried archaeological deposits revealed on the site during the course of the development groundworks; and
  - at the conclusion of the project, to produce an integrated archive for the project work and a report setting out the results of the project and the archaeological conclusions that can be drawn from the recorded data.

### ***Methodology***

- 1.8 The fieldwork followed the methodology set out within the *WSI* (NLM 2006). An archaeologist was present during intrusive groundworks comprising stripping of the pipeline easement to the natural substrate (Fig. 1).
- 1.9 The post-excavation analysis and reporting was undertaken following the production of the UPD (GA 2012) and included re-examination of the original site records. Finds and environmental evidence was taken from the assessment reports (NLM 2012b) except where the UPD recommended further work, in which case the updated reports were used. The archaeological background to the site was assessed using the following resources:-
- the *Archaeology and Heritage Survey* which was undertaken in advance of the pipeline construction and which examined a 1km-wide corridor centred on the pipeline centre line, including the then existing HER record (CA 2005);
  - Dyfed Archaeological Trust HER data (received July 2014); and

- other online resources, such as Google Earth and Ordnance Survey maps available at <http://www.old-maps.co.uk/index.html>.

All monuments thus identified that were relevant to the site were taken into account when considering the results of the fieldwork.

- 1.10 The archive from the watching brief is currently held by CA at their offices in Kemble and will be deposited with the RCAHMW. A digital copy of the paper archive will be deposited with Carmarthenshire Museum (accession number CAASG 2008.0282).

## 2. RESULTS (FIG. 2)

- 2.1 This section provides an overview of the watching brief results; detailed summaries of the recorded contexts and environmental samples (palaeoenvironmental evidence) are to be found in Appendices A and B. Full, original versions of the specialist reports are available within the archive.

- 2.2 The natural geological substrate was overlain by a layer of burnt material, 146.3005 (Fig. 2). Initially, this was thought to have occupied a shallow cut, but this was uneven and poorly defined and was more probably a natural depression in the underlying substrate. This depression was oval in plan, and was 4.75m long, 3m wide and 0.2m deep and the material filling it was recorded as dark ash with frequent charcoal and burnt stones. Further small patches of burnt material survived as thin lenses above the natural substrate in the vicinity, and a further 0.35m-thick layer of burnt material was visible within the section of a baulk left within the site. No finds were recovered from the site. Fuelwood charcoal recovered from the mound comprised mostly of oak, with small amounts of alder, hazel and hawthorn (Appendix B). This composition is comparable to that typically seen at burnt mound sites elsewhere along the pipeline.

### *Discussion*

- 2.3 The nature of the burnt material and its stream-side location suggest that it was part of a burnt mound and it probably represents material which accumulated within a natural hollow. The burnt stone density in this deposit is however fairly low by comparison with many other burnt mound deposits. The presence of further burnt material along the edge of the easement suggests that related features, such as

further mound material, troughs and hearths might survive beyond the excavated area. The burnt mound at Site 300 was undated; other mounds excavated along the pipeline route have typically returned radiocarbon dates within the Bronze Age, although earlier and later examples are known.

### **3. PROJECT TEAM**

Fieldwork was undertaken by Stuart Joyce, Derek Evans and Sian Reynish. This report was written by Jonathan Hart with illustrations prepared by Daniel Bashford. The archive has been compiled by Jonathan Hart, and prepared for deposition by Hazel O'Neill. The fieldwork was managed for CA by Clifford Bateman and the post-excavation work was managed for CA by Karen Walker.





#### 4. REFERENCES

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- NLM (Nacap Land and Marine) 2012a *Milford Haven to Aberdulais High Pressure Gas Pipeline: Archaeology Assessment of Potential for Analysis*
- NLM (Nacap Land and Marine) 2012b *Felindre to Brecon High Pressure Gas Pipeline: Archaeology Assessment of Potential for Analysis*
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**APPENDIX A: CONTEXT DESCRIPTIONS**

Context No.	Context interpretation	Description	L (m)	W (m)	Depth (m)
146.3001	Topsoil	Brown-grey clay silt			0.25
146.3002	Subsoil	Brown-grey clay silt			0.25
146.3003	Natural				
146.3004	Natural depression	Shallow natural depression in the natural	4.75	3.0	0.2
146.3005	Burnt mound	Charcoal, ash and burnt stone layer	4.75	3.0	0.2

**APPENDIX B: PALAEOENVIRONMENTAL EVIDENCE BY JAMES RACKHAM**

A single sample was taken from a layer of burnt material, 146.3005, occupying a natural hollow a few metres west of a stream. The feature is interpreted as a burnt mound and tentatively assigned to the Bronze Age by analogy with other similar features along the pipeline. No material was submitted for radiocarbon dating from this feature.

**Table 1.** Bulk environmental sample from Site 300

sample no	context no	feature	description	processed wt kg.	processed vol l	date
146.301	146.3005		Burnt mound?	7	12	undated/BA?

The sample was processed in the manner described in the assessment report (Giorgi and Martin 2009) with the additional refloating of the dried <2mm sample residue whose flot volume is indicated in Table 2 as '2nd flot'. This sample was not assessed so the 1st and 2nd flots were sorted for charred macrofossils and the residue re-dried and checked with a magnet to recover any further magnetic material. It is not absolutely clear how much sample was processed. The sample sheet records 20 litres taken, the assessment notes 12 litres processed but the processing record notes only 8 litres but it is clear from the flots that two tubs of the sample were independently processed which would imply that a processing sheet has been lost. With a query over the sample volume no comments can be made with respect to the density of material in the deposit.

**Table 2.** Data for the environmental sample from Site 300

sample no	context no	pro-cessed vol l	1st flot vol ml	2nd flot vol	residue wt g	pottery	burnt clay	burnt stone g.	coal	flint	magnetic g.	burnt bone	comments
146.301	146.3005	7 or 12	273+175ch	170	nd			308			A+1.6		burnt sandstone, HNS x 1

\* abundance rating – E= 1-10 items; D=11-50, C=51=100, B=101-200, A=>200; nd – no data; HNS – hazel nutshell

Although we are not sure of the original volume of soil processed even at 7 litres the burnt stone density in this deposit is fairly low by comparison with many other burnt mound deposits, and the magnetic component is quite high although there is no indication from the magnetic fraction recovered during refloating that this indicates burning, some of the mudstone being iron rich but not visibly burnt. The burnt stone includes both mudstone and some sandstone.

The flot is dominated by charcoal much of it very fragmented (24% <1mm in 1st flot) but a single fragment of charred hazel nutshell was recovered. The charcoal assemblage has been studied as a sample of this burnt mound within the wider pipeline project.

### Charcoal (*Dana Challinor*)

The charcoal from the burnt mound material was analysed following standard procedures. As noted above, the material was heavily fragmented, with only a few fragments measuring >8mm. There was some infusion of sediment, but condition was fair. Four taxa were positively identified; *Quercus* sp. (oak), *Alnus glutinosa* (alder), *Corylus avellana* (hazel) and Maloideae (hawthorn group). A few fragments exhibited moderate ring curvature, but most appeared to come from trunk or large branchwood. Both oak sapwood and heartwood were present. Occasional low levels of vitrification were observed.

**Table 3.** Charcoal from a burnt mound layer at Site 300

	<b>Context number</b>	146.3005
	<b>Sample number</b>	146.301
<i>Quercus</i> sp.	oak	15 (hsr)
<i>Alnus glutinosa</i> Gaertn.	alder	5 (r)
<i>Corylus avellana</i> L.	hazel	3 (r)
<i>Alnus/Corylus</i>	alder/hazel	2
Maloideae	hawthorn group	4
Indeterminate		1
<b>Total</b>		<b>30</b>

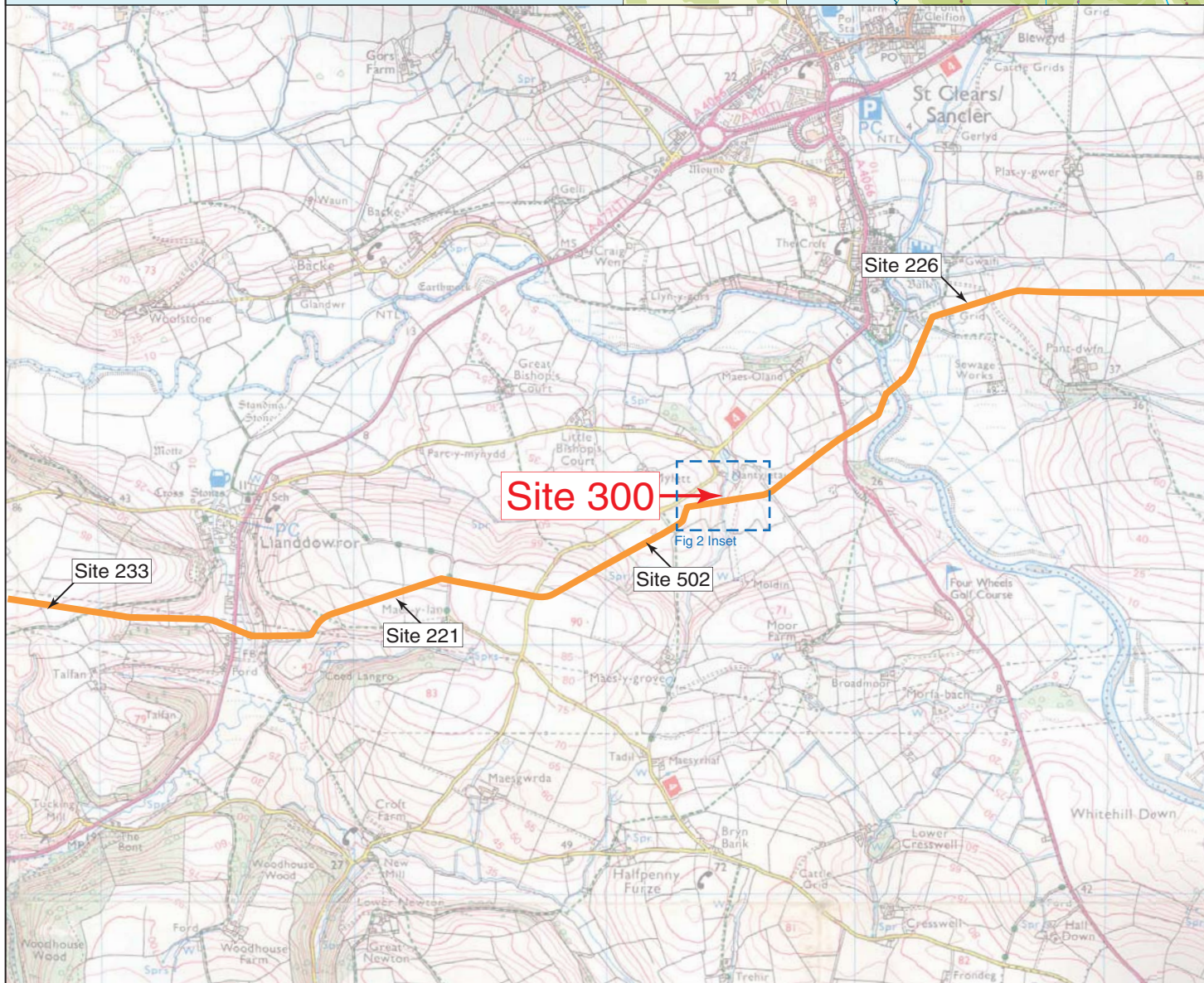
s=sapwood; h=heartwood; r=roundwood; (brackets denotes presence in some fragments only)

The results of the charcoal from Site 300 were similar to other Bronze Age burnt mound deposits found along the pipeline; chiefly fuelled by oak, with supplementary sources of alder, hazel and hawthorn group. The latter tends to occur in low levels, but fairly frequently in the charcoal assemblages of the burnt mounds. Given the environment of the site today (see below), all of the taxa would have been readily available.

### Discussion

The information for this site is poor and although burnt stone is recorded it is not possible to assess how much burnt stone came from how much soil sample. Therefore despite the mound occupying an area of approximately 10.5 sq metres and a gross surviving volume of about 0.71 cubic metres we do not know how much burnt stone this represents. We might make a very crude estimate using the average burnt stone content in other mounds, 0.45 tonnes, but with a variation between mounds of 369g–1085g of burnt stone per litre this figure could be significantly out. Nevertheless with a potential range of 0.26 to 0.77 tonnes it is still a small mound. A single charred hazel nutshell indicates some possible food debris.

The site lies on the valley floor on the west bank of the former course of a stream that now flows along a newly cut channel. The stream banks are currently lined with trees, and alder and willow are likely to have lined it in the Bronze Age, with oak and hazel woodland on the slopes. The stream flows over Devensian diamicton with deposits of glacio-fluvial sands and gravels on the hills to the south-west and north-east. Unfortunately we cannot establish whether the site utilised the underlying mudstones on the site or material from the sands and gravels washed from the hillsides above as their stone source, because the coarse sample residues were discarded before description, but both sources are likely to have been available from the stream bed and banks.



- Milford Haven to Aberdulais pipeline
- Felindre to Brecon pipeline
- 0-75m contour
- 75m contour
- 200m contour
- 400m contour
- 600m contour



Cirencester 01285 771022  
Milton Keynes 01908 218320  
Andover 01264 326549  
www.cotswoldarchaeology.co.uk  
enquiries@cotswoldarchaeology.co.uk

#### PROJECT TITLE

South Wales Pipeline. Site 300, Land at Nant-y-tau, Llandowror, Carmarthenshire

#### FIGURE TITLE

Site location plan

0 1km

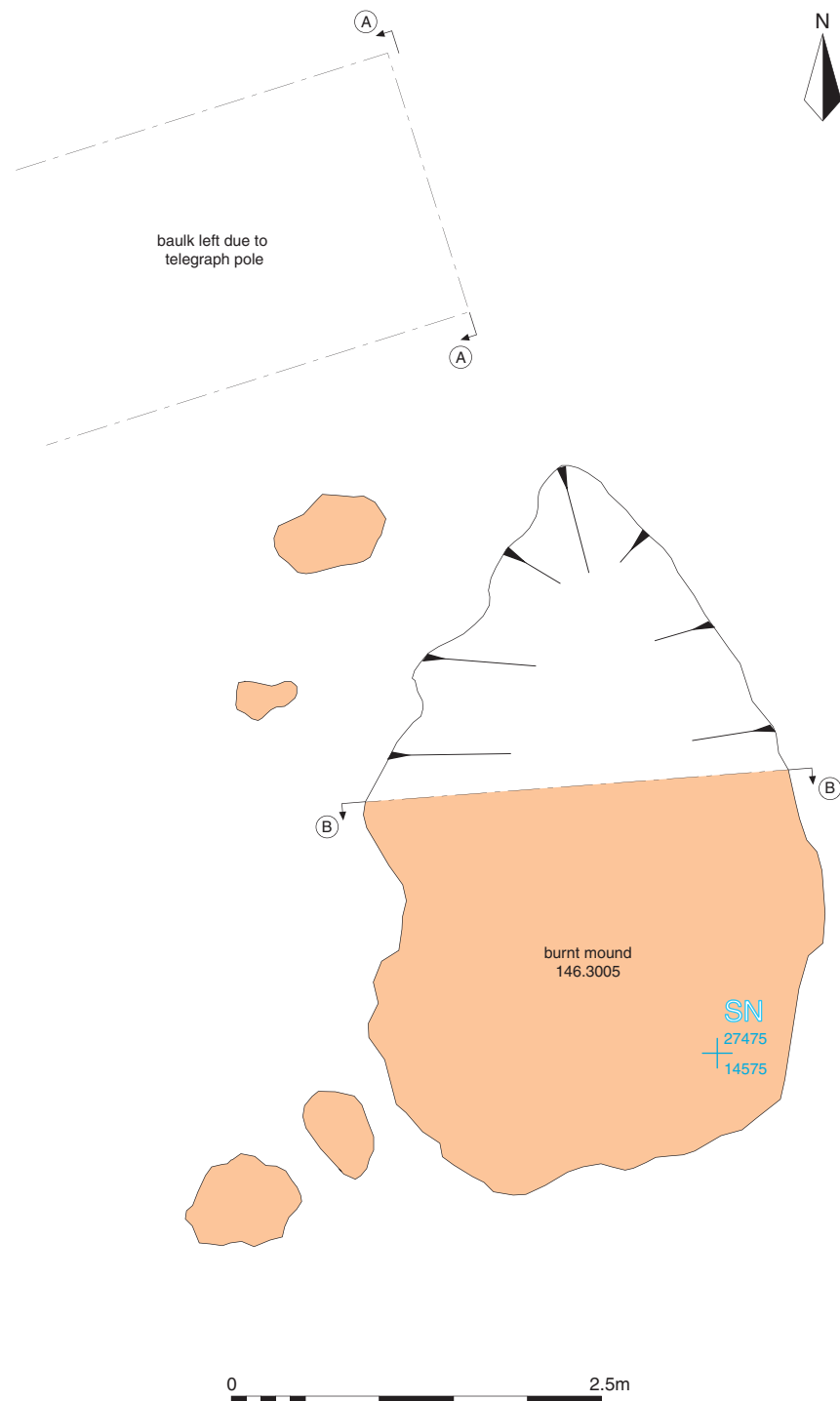
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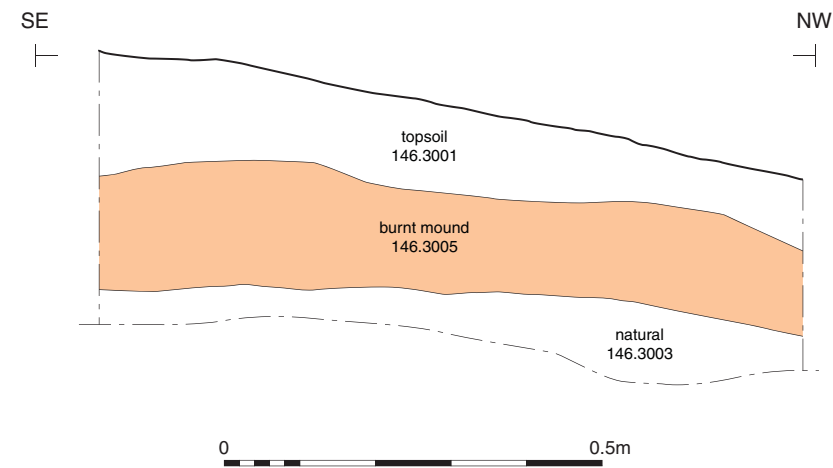
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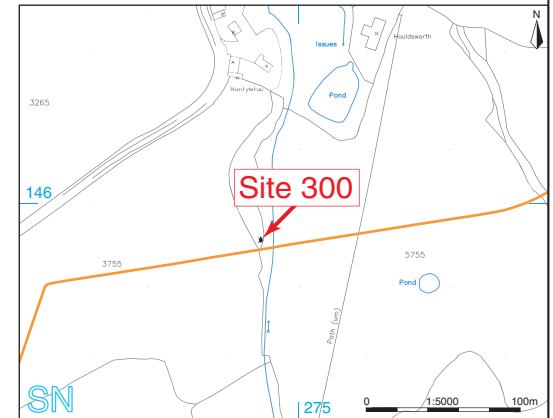
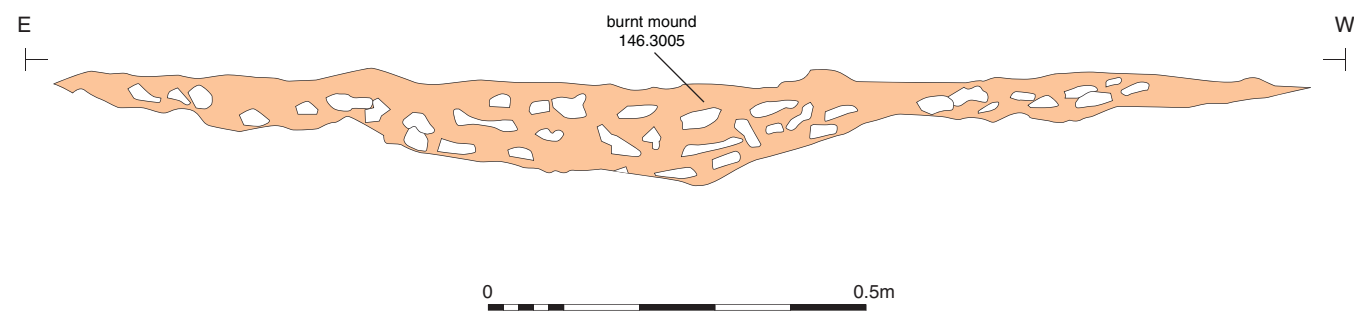




Section AA



Section BB



- burnt mound material
- pipeline centreline

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Milton Keynes 01908 218320  
Andover 01264 326549  
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e [enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

PROJECT TITLE  
South Wales Pipeline. Site 300, Land at Nantyietau, Llandowror, Carmarthenshire

FIGURE TITLE  
**Plan and sections of burnt mound 146.3005**

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