

South Wales Gas Pipeline Project Site 26.01 Land South of Dolau Farm Manordeilo and Salem Carmarthenshire

Archaeological Watching Brief

for

Rhead Group on behalf of

National Grid

CA Project: 9150 CA Report: 13311 Event: DAT108808

March 2014

South Wales Gas Pipeline Project Site 26.01

Archaeological Watching Brief

CA Project: 9150 CA Report: 13311 Event: DAT102846

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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

Project Name:	South Wales Gas Pipeline Project						
Location:	Site 26.01, Land South of Dolau Farm, Manordeilo and Salem,						
	Carmarthenshire						
NGR:	SN 6472 2496						
Туре:	Watching Brief						
Date:	2 May to 12 June 2007						
Location of Archive:	To be deposited with RCAHMW (original paper archive) and						
	Carmarthenshire Museum (material archive and digital copy of						
	paper archive; accession number CAASG 2008.0282)						
Site Code:	FTB 07						

An archaeological watching brief was undertaken by Cambrian Archaeological Projects Ltd 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.

An Early Neolithic leaf-shaped arrowhead was recovered from a palaeochannel. Cut into one bank of the palaeochannel was a trough with possible evidence of a former lining. This trough was filled with burnt material and was associated with a crescent-shaped burnt mound which partially overlaid both the trough and the palaeochannel. These remains were undated but were found alongside the same former watercourse as three burnt mounds found during the pipeline construction at Sites 26.02, 26.03 and 26.04. A group of pits 50m west of the mound also contained burnt stones and, although also undated, may indicate the location of a second burnt mound.

1. INTRODUCTION

- NACAP Land and Marine Joint Venture (NLMJV), on behalf of National Grid, 1.1 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 CA (then Cotswold Archaeological Trust) during 2005–2007 with some additional excavation work carried out by CAP. The 89km section 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 May and June 2007 CAP carried out an archaeological excavation at Site 26.01, Land South of Dolau Farm, Manordeilo and Salem, Carmarthenshire (centred on NGR: SN 6472 2496; 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 (RSK 2006) and associated Written Statements of Investigation (WSIs) and Method Statements.

The site

1.4 The site is located within a field near the confluence of the Rivers Towy and Dulais (Fig. 1). It lies on the floodplain of those rivers at 40m AOD and a small tributary flows immediately east of the site.

1.5 The underlying solid geology of the area is mapped as the Nantmel Mudstones Formation of the Ordovician Period overlain by superficial deposits of Quaternary Alluvium (BGS 2013).

Archaeological background

- 1.6 No archaeological remains were identified within the site during the preliminary *Archaeology and Heritage Survey* (CA 2006). At Sites 26.02, 26.03 and 26.04, three burnt mounds were found along a 500m stretch of the southern bank of a tributary of the River Towy during the pipeline construction works (Fig. 1; CA 2014). Site 26.01 lies alongside an earlier course of the same stream as depicted on the 1st Edition Ordnance Survey map. Charcoal from the burnt mound at Site 26.04 returned Early Bronze Age radiocarbon dates and a stone-lined hearth also dating to the Early Bronze Age was identified during an evaluation of Site 26.04, along with undated pits. Approximately 0.6km south-west of Site 26.01 further remains were exposed during the pipeline works at Site 25.08 (Fig. 1). These comprised part of an undated ring ditch, possibly the remains of a prehistoric barrow or roundhouse, as well as a ditch and three pits. Roman or later metalworking remains were also found nearby during the pipeline works at Site 25.12 (Fig. 1).
- 1.7 An undated square enclosure is recorded from cropmark evidence 300m south-east of the site (CA 2006, ref. ID 1581) and an Iron Age defended enclosure has been identified 1.2km to the north-west (PRN 849). Later features recorded in the surrounding landscape comprise post-medieval and modern structures (PRNs 20434 and 33970).
- 1.8 No archaeological features were identified within the site during the preceding geophysical survey (BCC 2006) and consequently no evaluation of this area was undertaken.

Archaeological objectives

- 1.9 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

- 1.10 The fieldwork followed the methodology set out within the *WSI* (NLM 2006). An archaeologist was present during intrusive groundworks comprising topsoil and subsoil stripping of the pipeline easement to the natural substrate (Fig. 1). Although no archaeological remains were encountered during the initial watching brief, features were revealed during subsequent benching works undertaken under archaeological supervision.
- 1.11 The site was investigated in accordance with a generic excavation and sampling methodology applied to all burnt mounds on the pipeline project. The mound was 50% excavated by means of a series of sondages, as its size and shape precluded investigation through excavation of opposed quadrants. It was bulk-sampled from a 0.5m by 0.5m sondage dug through the highest point of the mound.
- 1.12 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 2006);
 - Dyfed Archaeological Trust HER data (received July 2014); and
 - other online resources, such as Google Earth and Ordnance Survey maps available at <u>http://www.old-maps.co.uk/index.html</u>.

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

1.13 The archive and artefacts from the watching brief are currently held by CA at their offices in Kemble. Subject to the agreement of the legal landowner the artefacts will be deposited with Carmarthenshire Museum under accession number CAASG 2008.0282, along with a digital copy of the paper archive. The original paper archive will be deposited with the RCAHMW.

2. RESULTS (FIGS 2–3)

- 2.1 This section provides an overview of the watching brief results; detailed summaries of the recorded contexts, finds and environmental samples (palaeoenvironmental evidence) are to be found in Appendices A, B and C. In addition to the features described below, a Mesolithic blade fragment was recovered as a surface find.
- 2.2 The natural geological substrate (261001), comprising orange silty clay alluvium, was cut by a palaeochannel and a trough, both of which were partially sealed by a burnt mound. Five pits (see below) identified approximately 50m west of these features were not georeferenced and are not illustrated.
- 2.3 The earliest feature was a palaeochannel which was found at a bend in its course. It was 3.5m wide and 0.5m deep with a broad u-shaped to flat-based profile and was filled with silty clay 261016 which contained an undateable flint flake and an Early Neolithic leaf-shaped flint arrowhead. A lens of charcoal within the upper fills was sampled and yielded charred oats suggesting that this upper deposit formed in the post-Roman period (see Appendix C).
- 2.4 Trough 261012 had been cut into the top of the eastern bank of the palaeochannel. It was a sub-rectangular cut with vertical sides and a flat base and was 1.65m long, 1.1m wide and 0.3m deep. Four postholes, one at each corner, may have held posts to retain a lining, although no further traces of this were found. A fifth posthole was present at its base. The trough contained a series of fills comprising clay, charcoal and burnt stone. Charcoal from fill 261014 was dominated by oak, presumably the remains of fuel.
- 2.5 The trough and parts of the palaeochannel were overlain by burnt mound 261002, the crescent-shape of which mirrored the bend in the palaeochannel. The mound was 12m long, 5m wide and up to 0.35m deep and comprised charcoal with burnt mudstone and sandstone. A distinct lens of burnt material (261035) at its base was the earliest episode of deposition. Most of the mound had accumulated within natural undulations and no former land surface was discernible. The mound was partially overlain by alluvial silt 261019.

2.6 Five circular pits (pits 261036, 261054, 261056, 261059 and 261061; not illustrated) were identified *c*. 50m west of the burnt mound. All had bowl-shaped profiles and were typically 1m wide and 0.15 to 0.3m deep. They contained up to two fills comprising burnt stone and charcoal and, although undated, may have been associated with another, as yet unidentified, burnt mound.

Discussion

- 2.7 The palaeochannel had clearly largely silted up before much of the mound material had been deposited. However, it presumably still flowed, or retained water, when the trough was constructed, as it would have been used to feed water into the trough. Charred plant remains from the upper surface of the channel included oats, suggestive of post-Roman dating, but these had no direct stratigraphic relationship with the burnt mound and most probably simply reveal that the channel either still flowed intermittently into the post-Roman period, or persisted as a hollow.
- 2.8 The trough was cut through the palaeochannel. It was sealed by the burnt mound, indicating that mound material continued to be deposited after this trough fell into disuse, and the site was probably used episodically. There is wide evidence that at least some burnt mounds formed over a considerable duration of time. This was seen at sites along the pipeline (for example, Site 506) and is evidenced beyond. Bayesian analysis of radiocarbon dates from sequences within two burnt mounds at Town Farm Quarry, Burlescombe, Devon indicated that one mound related to use over a period of between 10 and 170 years and had gone out of use before the second mound formed, itself the result of up to 60 years' worth of activity (Gent 2007, 37).
- 2.9 The burnt mound at Site 26.01 was undated; other examples excavated along the pipeline route have mostly returned Bronze Age radiocarbon dates but include Late Neolithic and Iron Age examples. No evidence was forthcoming as to the nature of the activities undertaken at the mound, although the absence of food remains is worthy of note and use for the mounds found along the pipeline as washing places or saunas has been proposed (Hart *et al.* forthcoming).
- 2.10 Taken with the three burnt mounds found along the former route of the same watercourse at Sites 26.02, 26.03 and 26.04, the presence of the mound at Site 26.01 reveals the density of such features within the landscape and suggests that more remain to be discovered alongside this and other water courses.

3. PROJECT TEAM

Fieldwork was undertaken by Cambrian Archaeological Projects. This report was written by Alistair Barber with comments by Jonathan Hart and 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 CAP by Kevin Blockley and the post-excavation was managed for CA by Karen Walker.

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APPENDIX A: CONTEXT DESCRIPTIONS

Context	Fill of	Interpretation	Description		W (m)	Dept h (m)
261001		Natural substrate	Orange-yellow silt-clay			
261002		Burnt mound deposit	Dark grey-black grit-silt with abundant heat- affected stone	7.5	7	0.35
261003		Palaeochannel	Moderately-sloping sides and concave base			0.55
261004	261003	Palaeochannel fill	= 261016			0.2
261005	261003	Palaeochannel fill	= 261016			0.35
261006		Burnt mound deposit	= 261002			0.15
261007	261003	Palaeochannel fill	= 261016			0.15
261008	261009	Palaeochannel fill	= 261016			0.35
261009		Palaeochannel	= 261003			0.35
261010			UNUSED CONTEXT			
261011	261012	Trough fill	Grey-black heat-affected stone and silt			0.15
261012		Trough cut	Sub-rectangular with near vertical edges and flat base	1.65	1.25	0.3
261013	261012	Trough fill	Light grey silt-clay and charcoal	1.5	1.25	0.2
261014	261012	Trough fill	Charcoal and silt	1.5	1.25	0.05
261015		Palaeochannel	Trough fill			0.15
261016	261015	Palaeochannel fill	Blue-grey to yellow-grey clay silt			0.4
261017		Palaeochannel	= 261003			0.25
261018	261017	Palaeochannel fill	= 261016			0.25
261019		Layer	Grey-brown silt alluvium			0.1
261020		Palaeochannel	= 261003			0.3
261021	261017	Palaeochannel fill	Blue-grey to yellow-grey clay silt			0.1
261022	261022		UNUSED CONTEXT			
261023		Palaeochannel	= 261003			0.2
261024			= 261023			0.3
261025		Burnt mound deposit	Grey-black heat-affected stone and silt	4.4		0.2
261026		Palaeochannel	= 261003			0.35
261027	261026	Palaeochannel fill	= 261016			
261028		Burnt mound deposit	Dark grey-black grit-silt with abundant heat- affected stone			0.1
261029			UNUSED CONTEXT			
261030	261031	Palaeochannel fill	= 261016			0.2
261031		Palaeochannel	= 261003			0.25
261032	261031	Palaeochannel fill	= 261016			0.25
261033		Burnt mound deposit	Black silt-clay			0.1
261034	261015	Palaeochannel fill	= 261016			0.1
261035		Burnt mound deposit	Grey-black heat-affected stone and silt			0.25
261036		Pit	Sub-circular with steeply-sloping sides and flat base		1.1	0.3
261037	231036	Pit fill	Mid grey-brown silt-clay		0.6	0.1
261038	231036	Pit fill	Dark grey-black silt-grit and burnt stone		1.2	0.2
261039		Posthole	Circular with steeply-sloping sides and concave base		0.1	0.15
261040	261039	Posthole fill	Mid grey silt-sand		0.1	0.15
261041		Burnt mound	Dark grey-black grit-silt with abundant heat-	1.7		0.1

		deposit	affected stone			
261042		Natural substrate	Grey-yellow silt-clay	1.75		0.25
261043	261012	Trough fill	Charcoal and silt	1.3		0.15
261044		Posthole	Circular with vertical sides and concave base	0.1	0.1	0.15
261045	261046	Posthole fill	Light brown-grey silt-clay	0.1	0.1	0.1
261046		Posthole	Circular with steeply-sloping sides and concave base	0.1	0.1	0.1
261047	261012	Trough fill	Grey-yellow silt-clay	1.5	1	0.05
261048	261012	Trough fill	Grey and black clay-silt	1.5	1	0.05
261049	261039	Posthole fill	Mid grey sand-silt	0.1	0.1	0.15
261050		Posthole	Oval with steeply-sloping sides and concave base	0.1	0.1	0.2
261051	261050	Posthole fill	Light yellow-grey silt-clay	0.1	0.1	0.2
261052		Posthole	Circular with vertical sides and concave base	0.1	0.1	0.15
261053	261052	Posthole	Light grey silt-clay	0.1	0.1	0.15
261054		Pit	Oval with steeply-sloping sides and flat base	0.55	0.35	0.1
261055	261054	Pit fill	Mid grey-brown clay-silt	0.55	0.35	0.1
261056		Pit	Sub-circular with steeply-sloping sides and uneven base		1	0.2
261057	261056	Pit fill	Mid grey silt-clay		0.8	0.15
261058	261056	Pit fill	Light grey clay-silt		0.7	0.1
261059		Pit	Sub-circular with gently-sloping sides and uneven base		1.55	0.1
261060	261059	Pit fill	Light grey-brown silt-clay		1.55	0.1
261061		Pit	Sub-circular with gently-sloping sides and concave base	2.25	1.25	0.1
261062	261061	Pit fill	Dark grey-brown silt-sand	2.25	1.25	0.1

APPENDIX B: THE FINDS

Lithics (Pannett 2009)

A Mesolithic blade fragment was recovered as a surface find, and an undiagnostic flake and an Early Neolithic arrowhead were recovered from the palaeochannel adjacent to the burnt mound.

APPENDIX C: THE PALAEOENVIRONMENTAL EVIDENCE BY JAMES RACKHAM

Seventeen bulk samples were collected, and two monolith samples were taken through the palaeochannel fills. A series of three sample spits were taken from the northern section of the mound, three bulk samples were collected from three of the burnt mound sections and a series of fills were sampled in trough 261012 and the fills of two of the postholes in the base of this trough. A large charcoal rich silty clay layer in the palaeochannel, 261006, was also sampled. Bulk samples were taken from the fills of five pits (samples 9,13-16) 50m west of the burnt mound.

sample no	context no	feature	description	processed wt kg	vol I* taken
2613001	261002	0-5cm	Burnt mound deposit	15.5	15
2613002	261002	5-10cm	Burnt mound deposit	12	15
2613003	261002	10-15cm	Burnt mound deposit	8	13
2613004	261011	261012	Stony fill of trough	10	15
2613005	261014	261012	Trough fill	6	12
2613006	261035	261002	Fill burnt mound section 5	11	15
2613007	261025	261002	Burnt mound deposit section 6	12	15
2613008	261033	261002	Charcoal rich deposit overlying palaeochannel fills section 7	9	15
2613009	261038	261036	Pit fill	10	15
2613010	261048	261012	Primary fill trough	5	12
2613011	261051	261050	Stakehole fill	0.957	1.5
2613012	261053	261052	Stakehole fill	0.92	1.5
2613013	261055	261054	Pit fill	9	15
2613014	261057	261056	Pit fill	10	15
2613015	261060	261059	Pit fill	14	15
2613016	261062	261061	Pit fill	20	15
2613018	261006		Charcoal spread in palaeochannel	8	

Table 1.	Bulk environmental	samples from	1 Site 26.01
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* volume estimated on site – not accurate

None of the deposits have been dated. The charcoal spread, 261006, in the top of the palaeochannel is tentatively assigned to the post-Roman period (see below). The samples were processed in the manner described in the assessment report (Carruthers 2008). The residues of all the samples were refloated to produce a second flot. The residues were sorted for finds, burnt stone and checked for a magnetic component although very little of the latter was found (Table 2). The volume of the second flot is noted in Table 2 and these flots were scanned for identifiable charred plant remains.

sample no	context no	pro- cessed wt kg	1st flot vol ml	2nd flot vol	residue wt g	pottery	burnt clay	burnt stone	coal	flint	magnetic	burnt bone	commei	nts
Burnt mo	und and	trough												
2613001	261002	15.5	1057	1	9124			8292						
2613002	261002	12	310	3	8014			6712			+			
2613003	261002	8	834	1	4011			3679			+			
2613004	261011	10	110	1	6555			6528						
2613005	261014	6	580	1	592			433			1		fill trough	of
2613006	261035	11	300+	2	6390			5936			+			
2613007	261025	12	560	4	8714		6	7972			0.2		HNSx2	
2613008	261033	9	1000	1	346			339						
2613010	261048	5	200	1	339			276						
2613011	261051	0.957	0	0	712								no flot	
2613012	261053	0.92	1	0	9									
Isolated p	oit group				·	·					·			
2613009	261038	10	390	3	5097			4328						
2613013	261055	9	32	10	2424			1553						
2613014	261057	10	700	3	5868			5286						
2613015	261060	14	14	1	9921			875					fill trough	of
2613016	261062	20	112+?	2	4906			4576			0.6			
Linear and palaeochannel														
2613018	261006	8	725	4	1500								<i>Avena</i> x15 +2fr	sp. g.

The samples produced an abundance of burnt stone and a small magnetic component in a few samples (Table 2) which includes some mineralised material and some burnt sandstone crumb. This is typical of all the burnt mounds along the pipeline route. Stone concentrations in the burnt mound deposits range from 46-66% by weight of the deposit, but with one sample from BM deposit 261033 producing a small stone component but a large charcoal faction. This deposit is technically lying on the fills of the underlying palaeochannel and was equated on site with 261006 and its low stone content probably means that it is not technically part of the burnt mound build-up. The upper fill of the trough is 65% burnt stone, but the lower fills, 261014 and 261048 have little burnt stone (7 and 5%) and were described in the field as charcoal rich. Charcoal concentrations in the mound deposits range from 25 to 111ml per kilogramme of deposit, and those in the trough fills 11-97ml/kg which suggests no particular concentration of charcoal in the trough fills, although these figures reflect larger concentrations of charcoal than many of the burnt mounds.

The burnt stone and charcoal content of the group of pits 50m west of the burnt mound is less dense, with a burnt stone component of 6-53% of the original sample and charcoal concentrations between 1 and 70ml/kg. Nevertheless this is still consistent with the assemblages that would be expected from pits and troughs associated with a burnt mound, and with two of the pits producing 43 and 53% burnt stone by weight it is perhaps more typical of burnt mound deposits than other types of prehistoric feature.

The only plant macrofossil remains from the burnt mound deposits are two small fragments of charred hazel nutshell from context 261025, but the charcoal spread (261006) on top of the palaeochannel fills (see Tables 1

and 2) has produced fifteen grains and a couple of fragments of charred oat, *Avena* sp. Comparison with other sites along the pipeline and elsewhere in Wales suggests that a deposit with oats and nothing else is more likely to be post-Roman than prehistoric.

Monolith samples

The monolith samples were taken from two sections through the palaeochannel. The monolith from palaeochannel 261003 (east section/west facing – Column 2) was taken from an area where the channel fills are not overlain by burnt mound debris. Column 1 is described as 261021, taken from the basal fill of the palaeochannel below burnt mound. The absence of organics in either sequence, the very low likelihood of pollen surviving in a condition suitable for study, the absence of precise location data for the monolith samples and the lack of secure dating for the channel fills has led to a decision not to undertake any post-excavation analyses.

Monolith column sample 1

The base of the monolith (33-36) suggests the natural clay/silts through which the feature cut. Immediately above the 'floor' of the channel (28-33) is a deposit that is composed of fractured stone and charcoal flecks indicating dump or inwash, presumably of burnt mound material, onto the channel floor. Above this the sediments fine upwards becoming more clayey and including charcoal flecks throughout. This would suggest an early episode of mound formation, followed by silting in the channel and a later episode sealing this sampled deposit in other parts of the site or perhaps erosional in wash from the burnt mound at a later date. The sequence suggests an initial phase of inwash mixed with waterborne finer sediments, leading to a slow build up of fine material, probably on a vegetated surface, with charcoal flecks being reworked into the channel fills from the burnt mound. The sequence has developed structure, particularly in the upper sediments and none of the deposits look waterlain and sealed. The feature, palaeo or scour channel, may not have been a permanent stream, but only functioned during periods of high run-off, events that may have occurred during the formation of the burnt mound.

Monolith column sample 2

The sediments in this monolith are relatively featureless. A pebble horizon at the base may mark the floor of the channel or the surface of underlying channel fill 261004. The variations up the profile appear to reflect postdepositional changes to the sediments rather than sedimentary events, although they fine upwards a little in the basal half. The upper half shows the structure of a developing soil.

Charcoal (Dana Challinor)

Given the poor preservation of charcoal noted in the assessment, which was confirmed by the author, it was decided that most of the samples did not merit analysis. A single sample was examined, from the charcoal-rich fill of palaeochannel 261002 underlying the burnt mound. This contained burnt mound material, which provides a likely provenance for the charcoal assemblage. Standard identification procedures were followed, but only the >4mm fractions were examined as the condition was too poor to merit examination of the smaller fragments. Heavy mineralisation obscured the pore structure and, in some cases, the material was so crumbly that it often dissolved on fracturing. The presence of four discrete taxa was identified, although it was not possible to provide a confident identification in all cases: *Quercus* sp. (oak), *Alnus glutinosa* (alder), *Corylus avellana* (hazel) and cf. Maloideae (hawthorn group). The latter identification could not be confirmed owing to poor condition, but the dense, solitary pore distribution seen in transverse section was consistent with this taxon. Tyloses were only recorded in one oak fragment, and a few roundwood fragments were noted, but it was generally not possible to assess maturity.

Table 3: Charcoal from Site 26.01

	Context number	261033
	Sample number	2613008
Quercus sp.	oak	15 (hr)
Alnus glutinosa Gaertn.	alder	2
Corylus avellana L.	hazel	6 (r)
Alnus/Corylus	alder/hazel	2
cf. Maloideae	hawthorn group	2
Indeterminate		3
Total		30

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

The results are compromised by the poor condition of the charcoal, but it is, nonetheless, possible to record that oak and hazel were the main fuelwoods, with minor components of alder and possibly hawthorn group (and possibly other taxa). This is consistent with the results from the other sites along the pipeline and, notably, with the nearby Dolau Farm sites of 26.02 and 26.03. The charcoal from all these sites suffered from exceptionally poor preservation, which is assumed to have occurred as a result of deposition in deposits that suffer from a fluctuating water table.

Discussion

The samples from the burnt mound and trough are typical of similar mounds found along the pipeline with an abundance of burnt stone, a scatter of charcoal and a general absence of food remains. Just two fragments of hazel nutshell were recovered and the charred oat grains from the upper fills of the palaeochannel have no established relationship with the mound and are likely to be of post-Roman date based on comparison with other charred oat deposits found along the pipeline.

The site lies some distance from the modern stream, but the 1st edition OS 1:2500 map (1885-87) shows the stream following an earlier course, which may itself be displaced from the Bronze Age course. The site is approximately 27m east of the stream marked on the 1st edition OS map but a 'palaeochannel' was excavated on site. The question is whether this was a functioning stream channel? Perhaps it was the Bronze Age course of the main stream, and at approximately 3m wide this is possible, although the deposits recovered in the monoliths through the palaeochannel fills do not indicate a typical flowing stream course, show little depth (in places no more than 5cm below the mound deposits (although approx. 0.5-0.6m below modern ground surface), and the palaeochannel sediments also overlay the burnt mound where it infills the channel. This may be more sensibly seen as a run off channel or seasonal scour feature that has filled with colluvial sediments and colluvial sediments later cover the mound itself where it lies in the channel hollow. The modern stream currently flows south into the River Towy, but it seems likely that its original course was westwards into the much closer River Dulais, although neither field boundaries or crop marks give any convincing clue as to where, although a field boundary on the south side of the road could be a candidate.

The burnt stone in the mound comprised sandstone and mudstone cobbles, with angular and fractured sandstone and mudstone, suggesting riverine or glacial sources for the cobbles and perhaps tree throws for the angular material. The site lies over Nantmel mudstones, but has a superficial covering of alluvium (clay, silt, sand and gravel derived largely from the terrace deposits of the River Dulais that has flowed through mudstone and sandstone formations upstream, and is the probable source of the cobbles, although the stream itself has flowed through Devensian diamicton to the east and could equally have been a source of the cobbles.







Section BB (after burnt mound layer removed)









General site view, looking east (scales 1m & 2m)

