

**South Wales Gas Pipeline Project  
Site 15.01  
Land West of Llwynypiod  
Llandybie  
Carmarthenshire**

**Archaeological Excavation**

DRAFT

*for*

**Rhead Group**

*on behalf of*

**National Grid**

CA Project: 9150  
CA Report: 13285  
Event: DAT108799


August 2013

# South Wales Gas Pipeline Project

## Site 15.01

### Archaeological Excavation

CA Project: 9150  
CA Report: 13285  
Event: DAT102846

prepared by	Daniel Sausins, Project Supervisor and Jonathan Hart, Senior Publications Officer
date	23 August 2013
checked by	Karen E Walker, Post-Excavation Manager
date	28 April 2015
approved by	Martin Watts, Project Director, Head of Publications
signed	
date	30 August 2013
issue	01

*This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.*

© Cotswold Archaeology

<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>		

## CONTENTS

SUMMARY .....	2
1. INTRODUCTION.....	3
<i>The site</i> .....	4
<i>Archaeological background</i> .....	4
<i>Archaeological objectives</i> .....	4
<i>Methodology</i> .....	5
2. RESULTS (FIGS 2–5) .....	5
3. PROJECT TEAM .....	9
4. REFERENCES.....	10
APPENDIX A: CONTEXT DESCRIPTIONS .....	12
APPENDIX B: THE FINDS.....	14
APPENDIX C: THE PALAEOENVIRONMENTAL EVIDENCE BY JAMES RACKHAM....	15

## LIST OF ILLUSTRATIONS

- Fig. 1 Site location plan (1:25,000)
- Fig. 2 Plan of archaeological feature (1:200)
- Fig. 3 Plan of Building A (1:50)
- Fig. 4 Plan of Building B (1:50)
- Fig. 5 Plan of Building C (1:100)
- Fig. 6 Photograph: general view of western half of the site, looking north with Building A in foreground and Building B to north
- Fig. 7 Photograph: Building A, looking north-west
- Fig. 8 Photograph: Building A, detail shot of eastern end of building, looking north
- Fig. 9 Photograph: Building B, looking north
- Fig. 10 Photograph: Building C, looking north

## 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 15.01, Land West of Llwynypod, Llandybie, Carmarthenshire  
**NGR:** SN 6293 1674  
**Type:** Excavation  
**Date:** 10 May–15 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:** FTP06

An archaeological excavation was undertaken by Cambrian Archaeological Projects 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.

Three rectangular stone-founded buildings were identified within what is now marginal land. These seem to represent the remains of a farm, with one probable dwelling and associated outbuildings and yards. The structures do not appear on the 1st Edition Ordnance Survey map of 1877–79, at which time the site was part of a quarry, and would seem to be medieval or post-medieval in date, a range consistent with the only stratified pottery from the site, a single sherd of Dyfed Gravel-Tempered unglazed pottery dateable to the late 12th to early 16th centuries. Two unstratified Roman pottery sherds were also found but the significance of these is not known.



## 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 CA (then Cotswold Archaeological Trust) during 2005–2007 with some additional excavation work carried out by 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 May and June 2007 CAP carried out an archaeological excavation at Site 15.01, Land West of Llwynypod, Llandybie, Carmarthenshire (centred on NGR: SN 6293 1674; Fig. 1). The objective of the excavation was to record all archaeological remains exposed during the pipeline construction.
- 1.3 The excavation 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 on the western slope of a 184m-high hill overlooking the Rivers Marlas and Gors Astell (Fig. 1). It lies at approximately 160m AOD on a gentle slope beneath the crest of the hill and above a steeper drop-off.
- 1.5 The underlying solid geology of the area is mapped as the Twrch Sandstone Formation (Interbedded Sandstone and Conglomerate) of the Carboniferous Period; no superficial deposits are recorded (BGS 2013).

***Archaeological background***

- 1.6 Archaeological remains identified by the *Archaeology and Heritage Survey* (CA 2006a) within the vicinity of the site include a Bronze Age cairn which occupies a prominent ridge above Llandybie (PRN 30325), 170m south-west of the site. However the archaeology of the study area is primarily characterised by later remains, relating to industrial activities.
- 1.7 The site was identified during the preliminary *Archaeology and Heritage Survey* as a series of earthworks visible on an aerial photograph (CA 2006a). These probably correlate with earthworks (PRN 13384) recorded by the Dyfed Archaeological Trust Historic Environment Record (DAT HER) and thought to be the remains of a former farmstead; although the HER earthworks are plotted as lying some 80m north of Site 15.01, this is with a 100m error. Analysis during the current reporting of the aerial photograph from which these earthworks were recorded by the HER suggests that they are indeed the same as those identified within Site 15.01
- 1.8 Extensive evidence for quarrying and lime kilns is recorded within the vicinity of the site (PRNs 27696, 10246 and 27351). Quarrying is also recorded in the vicinity on the 1st Edition Ordnance Survey map and on modern Ordnance Survey mapping.
- 1.9 As a result of the identification of the earthworks, an earthwork survey of the site was undertaken in advance of the pipeline construction works but this recorded only parts of a modern quarry (CA 2006b). However, given its potential significance, the site was selected for excavation, the results of which form the basis of this report.

***Archaeological objectives***

- 1.10 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***

1.11 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).

1.12 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 <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.

1.13 The archive and artefacts from the excavation 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 2–5)**

2.1 This section provides an overview of the excavation results; detailed summaries of the recorded contexts, finds and environmental samples (palaeoenvironmental evidence) are to be found in Appendices A, B and C. Not all of the deposits described below were recorded on plan, but all are described in relation to structural features, where applicable.

2.2 The natural geological substrate (151002), comprising sandy silt, was cut by the foundations and terrace cuts for three rectangular buildings (Buildings A–C) and was overlain by a collapsed wall and areas of stone surfacing and rubble (Fig. 2).

*Building A (Fig. 3)*

2.3 Building A was 9m long and 4.5m wide and survived as stone footings 151005 and 151008. These were built from roughly squared limestone blocks with a rubble core and had a drystone construction. They were 0.65m wide and survived to a height of up to 0.2m. Opposing entrances were present along the north and south-facing walls. Postholes 151020, 151025, 151026 and 151027 were found within the building and may have been related to it, although no structural pattern was apparent. A sample from one of these postholes included charcoal fragments likely to have derived from fuel. No internal surface was found.

*Building B (Fig. 4)*

2.4 Building B occupied a terrace (151013) cut into the natural slope. The terrace had been further levelled by the addition of make-up layer 151012. The building within this terrace was 10m long and 5.5m wide and utilised stone footings (151009 and 151010) similar to those of Building A. A possible internal wall, 151019, may have divided the building into two cells. No other internal features or floors were found, aside from several large flat stones which were perhaps the remains of a surface within the northernmost half of the building.

*Building C (Fig. 5)*

2.5 Building C was also constructed within an artificial terrace (151033) and survived as stone footings 151034, 151035 and 151036, comparable to those of Buildings A and B. These survived in places to a width of 0.9m and a height of 0.6m but had generally collapsed into rubble. The north-western end of the building was more extensively truncated and its groundplan was not clearly defined. One possibility is that the building was 12m long and 6.5m wide internally, consisting (at foundation level at least) of a single cell. Wall 151035 continued beyond the north-westernmost

limit of this groundplan and at least partially defined a stone surface. This may have been an external yard, but an alternative possibility is that Building C comprised two cells and had an overall length of 20m in its surviving form. It is not clear from the surviving groundplan where any entrances may have lain but one may have been provided at the northern end of wall 151036.

- 2.6 Internally, the southernmost cell contained a possible post-pad (151052), a group of scorched limestones (151053) likely to represent the location of a hearth, and the remains of a beaten-earth surface or make-up deposit (151048), consisting of pale silt with charcoal flecks. Clearer evidence for surfacing came from the putative north-westernmost cell which largely survived only as patches of flagstone and limestone rubble flooring (surface 151016). From this, a single sherd of Dyfed Gravel-Tempered unglazed medieval pottery was recovered. This sherd joined with a second sherd from the topsoil and is dateable to the late 12th to early 16th centuries.

#### *Other structures*

- 2.7 Further evidence of the buildings' construction was found in the form of an unstratified stone door jamb (see Appendix B). North/south aligned wall 151054 provided a boundary between Buildings A and C and was built from roughly squared limestone blocks in a drystone construction. Further possible small walls and stone surfaces recorded around the buildings may have represented yards or pens but, due to the level of collapse, further interpretation was not possible. Rubble was found across the site, and included two sherds of Roman pottery. These rubble deposits were sealed by the topsoil which included the second sherd of medieval pottery mentioned above, a nail and a small quantity of post-medieval vessel glass.

#### *Discussion*

- 2.8 The site contained the remains of three stone-founded buildings and it is likely that these relate to earthworks (PRN 13384) recorded by the HER (see *Archaeological background*, above). Evidence for the functions of these was limited but Building C was the largest structure and contained a hearth, and so would seem to represent (at ground floor level) a one or two-celled dwelling. It is possible that the putative second cell within this building was for livestock, and Buildings A and B would seem to have been outbuildings used for storage, workshops or livestock. Although the site is located within what is now marginal land, it is not part of the uplands, so is not a *hafod* used for the transhumant pastoral farming regime that is well attested in

Wales from the early medieval period until industrialisation (Roberts 2006b, 2). Instead, the site would seem to represent a farm. The agricultural regime practiced at this farm isn't readily apparent, given the very limited material remains recovered. Although a pastoral use might perhaps be implied by the possible barns or second cell within Building C, the farming regime could equally have included crop production. No cereal remains were found on the site, but this might simply reflect both the limited availability of charred remains on the site, and the fact that crop-processing could have occurred within field ovens located at field edges, away from the farm itself.

- 2.9 Given the limited material culture assemblage from the site, the farm is very difficult to date. The buildings are not depicted on the 1st Edition or later Ordnance Survey (OS) maps, suggesting that they had been abandoned by the late 19th century at the latest; the 1877–79 1st Edition OS map shows the site lying within a quarry. The two sherds of medieval pottery provide only tentative, and rather broad, dating evidence for the site's use and more refined dating might only be possible if older mapping and/or manorial records relating to the site are available for future study.
- 2.10 It is not known whether the Roman pot sherds, (two slightly worn amphora sherds from southern Spain), represents curated items collected by the occupants of the farm, or derive from an unidentified Roman site in the vicinity.

### 3. PROJECT TEAM

Fieldwork was undertaken by Cambrian Archaeological Projects. This report was written by Daniel Sausins and Jonathan Hart with illustrations prepared by Daniel Bashford (CA) and Anne Leaver (independent illustrator). 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 work was managed for CA by Karen Walker.

DRAFT



#### 4. REFERENCES

- BGS (British Geological Survey) 2013 *Geology of Britain Viewer*. Online resource at <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> accessed 3 July 2013
- CA (Cotswold Archaeology) 2006a *Felindre to Tirley Gas Pipeline: Archaeology and Heritage Survey*. CA typescript report **05140**
- CA (Cotswold Archaeology) 2006b *Felindre to Tirley Gas Pipeline, Cotswold Archaeology Cambria Section: Earthwork Survey*. CA typescript report **06029**
- Carruthers, W. 2008 Revised 2009 'Assessment Report for Charred Plant Remains', in NLM 2012b
- Courtney, P. 2008 'Assessment Report for Medieval and Later Pottery', in NLM 2012b
- EH (English Heritage) 1991 *The Management of Archaeological Projects 2*
- GA (Groundwork Archaeology) 2012 *Milford Haven to Aberdulais and Felindre to Brecon High Pressure Gas Pipelines: Updated Project Design*
- IfA (Institute for Archaeologists) 1999a *Guidelines for Finds Work*. IfA, Birmingham
- IfA (Institute for Archaeologists) 1999b *Standard and Guidance for Finds and Ecofact Studies and Curation*. IfA, Reading
- IfA (Institute for Archaeologists) 2001a *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. IfA, Reading
- IfA (Institute for Archaeologists) 2001b *Standard and Guidance for an Archaeological Watching Brief*
- IfA (Institute for Archaeologists) 2001c *Standard and Guidance for Archaeological Excavation*
- IfA Wales (Institute for Archaeologists of Wales/Cymru) 2008 *Introducing a Research Framework for the Archaeology of Wales*, online resource at <http://www.archaeoleg.org.uk/intro.html> accessed December 2008
- NLM (Nacap Land and Marine) 2006 *Milford Haven to Aberdulais Natural Gas Pipeline: Scheme of investigation for a programme of archaeological works*
- 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*
- O'Mahoney, C. 1995, Pottery, Ridge Tile and Ceramic water Pipe, *Excavations at Carmarthen Greyfriars 1983-1990*. Topic Report 2. Dyfed Archaeological Trust



- Papazian, C. and Campbell, E. 1992, Medieval Pottery and Roof Tiles in Wales AD 1100-1600. *Medieval and Later Pottery in Wales* 13 (special issue)
- Roberts, K. (ed.) 2006a *Lost Farmsteads: deserted rural settlements in Wales*. CBA Research Report 148, CBA, York
- Roberts, K. 2006b 'The Deserted Rural settlement Project: background and Methodology', in Roberts 2006a
- RSK (RSKENSr) 2006 *Milford Haven to Aberdulais Natural Gas Pipeline: Archaeological Management Plan. Nacap Land and Marine Final*, RSKENSr Environmental Ltd
- Schmidl, A. Jaques, D. and Carrott, J. 2009 'Assessment Report for Charcoal', in NLM 2012b
- Timby, J. R. 2008 Revised 2009 'Assessment Report for Roman Pottery', in NLM 2012b
- Vince, A. and Steane, K. 2008 'Assessment Report for Stone', in NLM 2012b

DRAFT



## APPENDIX A: CONTEXT DESCRIPTIONS

Context No.	Fill of	Context interpretation	Description	L (m)	W (m)	Depth (m)
151001		Topsoil	Dark grey-brown loam silt			0.2
151002		Natural	Mid orange grey-brown sandy silt			
151003		Colluvium	Orange-brown sandy silt			
151004		Rubble spread	Building A; Angular stone pieces of various sizes			
151005		Wall	Building A; worked and unworked stone in a drystone construction	4.1	0.65	0.2
151006			= 151002			
151007		Rubble spread	Building B; Angular stone of various sizes			
151008		Wall	Building A; unworked sub-angular and angular stone in a drystone construction		0.35	0.35
151009		Wall	Building B; worked and unworked stone in a drystone construction	5.0	0.8	0.4
151010		Wall	Building B; unworked sub-angular and angular stone in a drystone construction	6.0	1.1	0.2
151011		Natural	= 151002			
151012	151013	Make-up	Stone rubble	5.0	0.8	0.25
151013		Terrace cut for Building B	Rectangular, moderate sides, and flat base	8.2		0.3
151014		Stone surface	Angular and sub-angular stones of various sizes		2.5	0.3
151015		Wall	Building C; unworked stone blocks of various sizes in a drystone construction	10.8	1.4	
151016		Surface	Building C; stone slabs.			
151017		Post-hole	Building B; sub-circular, u-shaped profile		0.2	0.1
151018	151017	Post-hole fill	Dark grey-brown sandy silt with charcoal flecking		0.2	0.1
151019		Wall	Building B; possible internal stone wall in a drystone construction			
151020		Posthole	Building A; oval in plan, shallow sizes, concave base		0.35	0.25
151021	151020	Posthole fill	Dark red-brown silty clay		0.35	0.25
151022	151025	Posthole fill	Dark orange-brown fine sand		0.1	0.05
151023	151026	Posthole fill	Dark orange brown fine sand		0.05	0.05
151024	151027	Posthole fill	Dark orange-brown fine sand		0.05	0.05
151025		Posthole	Building A; circular, v-shaped profile		0.1	0.05
151026		Posthole	Building A; circular, v-shaped profile		0.05	0.05
151027		Posthole	Building A; circular, v-shaped profile		0.05	0.05
151028		Bank material	Yellow-orange sandy silt with stones		1.4	0.1
151029		Rubble layer	Angular and sub-angular stones	6.85	5.75	
151030		Make-up	Yellow-orange sandy silt	5.0	3.2	0.3
151031	151013	Make-up	Dark grey-brown sandy silt		0.5	0.05
151032	151033	Make-up	Dark red-brown silty sand	8.6	1.4	0.6
151033		Terrace cut for Building C	Sub-rectangular in plan, steep sides, flat base	8.6	1.4	0.6
151034		Wall	Building C; worked and unworked stone blocks in a drystone construction	8.0	2.0	0.6
151035		Wall	Building C; worked and unworked stone blocks in a drystone construction	8.6	0.75	0.6
151036		Wall	= 151034			
151037		Wall	= 151047			
151038	151033	Make-up	Light orange-yellow sand			
151039		?Surface	Orange grey-brown sandy silt		1.0	0.1
151040		Colluvium	Mid grey-brown sandy silt			0.1

151041		Colluvium	Light grey-brown sandy silt			0.1
151042		Natural	= 151002			
151043		Terrace cut	Building C; sub-rectangular moderate slopes, flat base			0.8
151044	151043	Make-up	Orange grey-brown sandy silt			0.4
151045	151043	Make-up	Dark orange grey-brown sandy silt			0.1
151046		Natural	= 151002			
151047			= 151034			
151048		Floor surface	Building C; mid-light grey silty clay with charcoal	1.4	1.2	0.05
151049		Rubble layer	Stone fragments	2.3	3.45	
151050		Rubble layer	Small sub-angular pebbles in grey-pink sandy clay	1.8	1.85	0.1
151051			Natural feature			
151052		?Post-pad	Building C; Oval in plan, flat stone pieces	0.9	0.8	
151053		?Hearth	Scorched stone			
151054		Boundary wall	N/S aligned, stone blocks in a drystone construction	10.0	1.2	

## APPENDIX B: THE FINDS

### Roman pottery (Timby 2008)

Two slightly worn sherds from Baetican (Dressel 20) olive-oil amphora, originally from southern Spain were recovered from rubble 151034. It is unknown whether these are simply collected curios from elsewhere or reflect nearby Roman occupation.

### Medieval and later pottery (Courtney 2008)

Context	Fabric	count	Wt (g)	Form	Decoration	Date/Period
151001	DGTU	1	35	C.pot/jar	Joins with below	MED
151016	DGTU	1	24	C.pot/jar	Joins with above	MED
U/S	DEWW	1	26	Thick flat base	EMOD	

### DGTU Dyfed Gravel-Tempered un-glazed Wares

This group comprises predominantly unglazed cooking pots/storage jars. The fabric is similar to the jugs including moderate rounded to sub-rounded and ill-sorted quartz under 0.5mm and moderate to abundant sub-rounded and flattened fine-sedimentary rock up to 5mm. ?late 12th-early 16th century (Papazian and Campbell 1992, 56; O'Mahoney 1995, 9-11).

### Worked Stone (Vince and Steane 2008)

A rectangular block, 550mm by 380mm by 275mm, with a circular socket at one end is probably a door jamb. It comes from site 15.01 (unstratified).

### Other finds

Context	Description	Count	Weight (g)	Spot date
u/s	4 fragments of aqua window glass, 1 shard of black glass and 1 fragment of clear bottle glass	6	12	C18-E C20
	Iron Nail	1		

## APPENDIX C: THE PALAEOENVIRONMENTAL EVIDENCE BY JAMES RACKHAM

Twelve bulk samples were collected but three were never processed (Table 1). Processed samples derive from postholes in Buildings A and B, six samples from the terrace make-up and floors of Building C, and one from a possible surface. The samples were processed in the manner described in the assessment report (Carruthers 2008). The residues were located, refloats, sorted and checked for a magnetic component.

**Table 1.** Bulk environmental samples

sample no	context no	feature	description	Wt kg.	Vol. l.*	Date
151001	151021	151020	Posthole fill, Building A	13	30	Med/PMED?
151002	151018	151017	Posthole fill, Building B	2	nd	Med/PMED?
151003			Not processed		0.15	
151004			Not processed		0.1	
151005			Not processed		0.1	
151006	151039		?surface	10	nd	Med/PMED?
151007	151038	151033	Make-up, Building C	34	60	Med/PMED?
151008	151048		Floor surface, Building C	7	10	Med/PMED?
151009	151032	151033	Make-up, Building C	15	30	Med/PMED?
151010	151050		Rubble layer-west side Building C	20	20	Med/PMED?
151011	151051		Natural feature – west side Building C below 151050	6	10	Med/PMED?
151014	151032	151033	Make-up, Building C	nd	Small bag	Med/PMED?

\* volume estimated on site – not accurate

There were few finds recovered from the samples. These were sorted from the residues during the refloating of the samples. Occasional flint chips and one small sherd of glass were recovered, although the latter could have moved down through the soil. A little burnt clay/earth was recovered from the floors, make-up and rubble layers, while some burnt stone was found in the postholes and the floor and make-up layers of Building C. A little coal might reflect its use on site, although it could occur naturally in the soils. Only the floor and make-up in Building C produced a magnetic component, but this is not suggestive of fire debris.

**Table 2.** Data for the processed environmental samples

Sample no	Context no	Pro-cessed wt kg	1st flot vol ml	2nd flot vol	residue wt g	burnt clay	burnt stone g.	coal	flint	magnetic	comments
151001	151021	13	15		2493		+++			-	
151002	151018	2	200	0.5	202		563			-	Glass x1
151006	151039	10	10		2200					-	
151007	151038	34	50		6060	+	++	3.2		-	
151008	151048	7	50		1173	+	114	+	+	0.2	
151009	151032	15	50		2487	1.8		2.2	+	0.2	
151010	151050	20	100		4900	1.8	+	+		-	
151011	151051	6	50		59		10			-	
151032	151032				1062		10	+		-	

The sample flots were composed entirely of charcoal. No identifiable charred plant macrofossils were found. The assessment scanned the charcoal from sample 151002 from posthole 151017, identifying stem and possible roundwood charcoal of oak (*Quercus* sp.) and a few fragments of alder/hazel (*Alnus/Corylus* sp.) (Schmidl *et al* 2009).

#### **Charcoal** (*Dana Challinor*)

A single sample from posthole 151017 was examined. The standard methodology was followed. Three taxa were positively identified; *Fagus sylvatica* (beech), *Quercus* sp. (oak) and *Corylus avellana* (hazel). Evidence of strong or moderate ring curvature was noted in all the taxa, and some oak roundwood exhibited tyloses. No complete stems were recorded, but ring counts indicated some roundwood pieces with a minimum age of 30 years. Some radial cracks and low levels of vitrification were observed. The charcoal assemblage was abundant, with some large fragments (>10mm). With the caveat that oak is often over-represented in smaller fractions (owing to its tendency to fragment into thin slivers), there was a large enough quantity of charcoal remaining in the examined sample to indicate that oak formed the most abundant taxon in the assemblage; 73%.

The assumed provenance of the charcoal is hearth waste from activities relating to seasonal occupation, but deposition must have occurred during or post-abandonment of Building B when the post had been removed as the assemblage is too large to have resulted from gradual accumulation, and there is no indication that the building had burned down and represents structural remains. The apparent use of mature oak roundwood (and/or logs) is not characteristic of the type of fuelwood, commonly used in the medieval period, deriving from faggots sourced from underwood or coppice. The presence of beech is of interest, since it is not commonly found in the charcoal assemblages from other sites along the pipeline (in any period), unlike oak and hazel which persist from prehistory. The use of beech as fuel in southern England appears to increase significantly in the medieval period (for e.g. Challinor 2009, Challinor 2010), although the paucity of data from 15.01 limits any assumptions here.

**Table 3:** Charcoal from posthole 151017

	<b>Sitecode</b>	15.01
	<b>Feature type</b>	posthole fill
	<b>Feature number</b>	151017
	<b>Context number</b>	151018
	<b>Sample number</b>	151002
<i>Fagus sylvatica</i> L.	beech	3 (r)
<i>Quercus</i> sp.	oak	22 (hr)
<i>Corylus avellana</i> L.	hazel	5 (r)

h=heartwood; r=roundwood; brackets denotes presence in some frags only

### Discussion

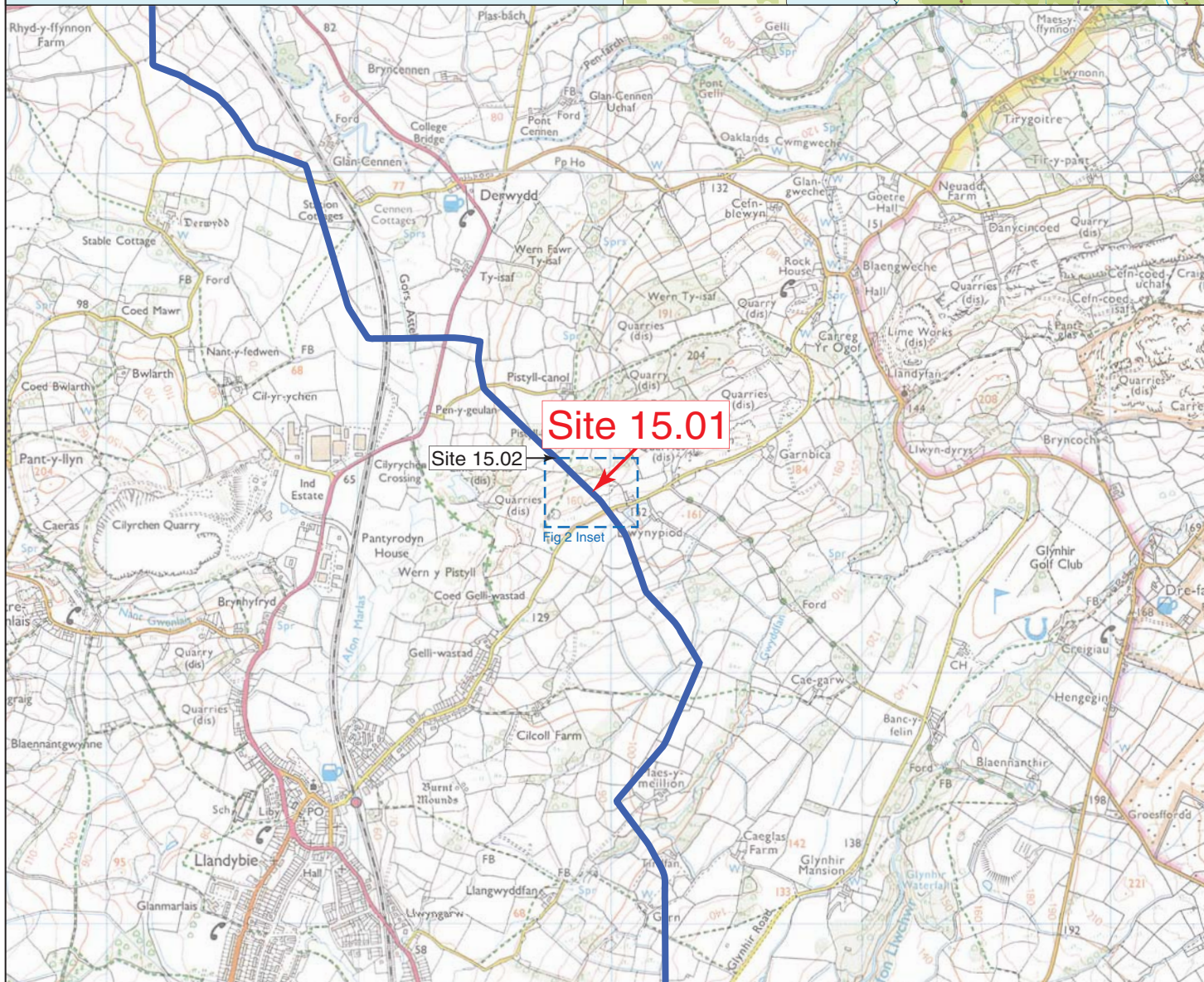
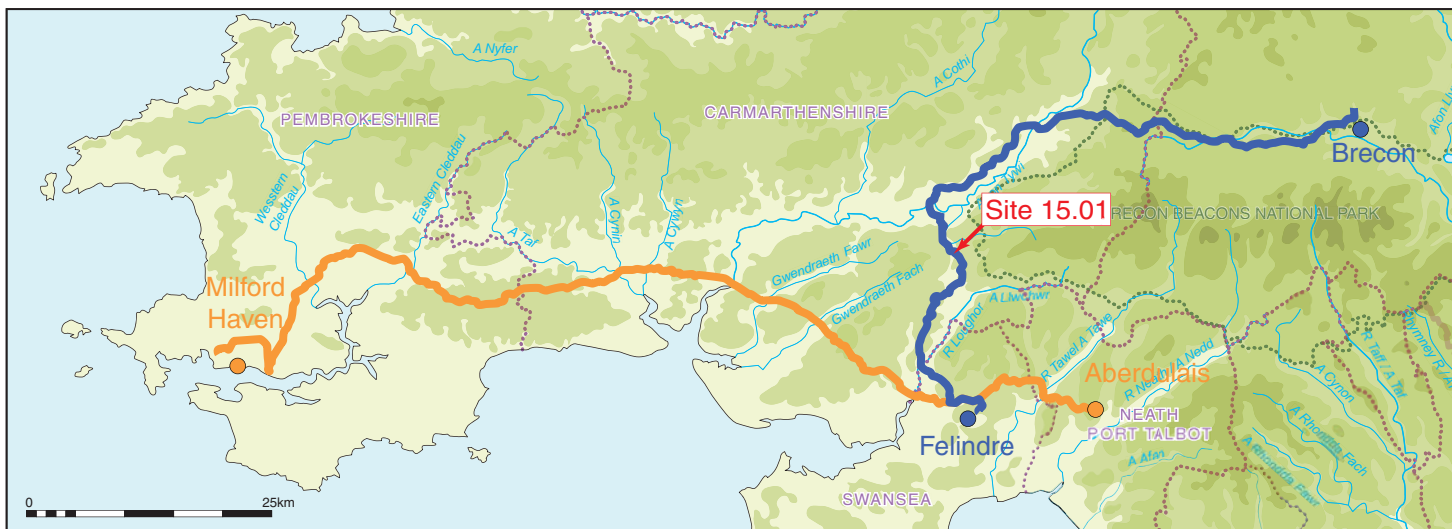
The charcoal indicates the use of oak, hazel and beech as fuel, presumably for domestic cooking, but potentially for agricultural processing, such as crop-drying or cheese making. The use of mature oak branchwood (logs) is perhaps unusual in the medieval period –smaller faggots and roundwood being more typical - and the beech suggests local resources not evident in other assemblages along the pipeline, perhaps a reflection of the late date of the site and the local soils. There is woodland on the hillsides today and fuelwood sources are not likely to have been a problem even in the later medieval and post-medieval period.

Challinor, D. 2010. The Wood Charcoal, in A Norton and J Mumford, Anglo-Saxon Pits and a Medieval Kitchen at the Queen's College, Oxford, 214-16, *Oxoniensia* **75**

Challinor, D. 2009. Specialist Report Downland E5: Charcoal. In R Brown, Excavations at Southampton French Quarter 1382. Online Oxford Archaeology Library, <http://library.thehumanjourney.net/55>

Schmidl, A. Jaques, D. and Carrott, J. 2009 Milford haven to Brecon Natural Gas Pipeline. Assessment report for charcoal. For Cambrian Archaeological Projects.





- 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 15.01, Land West of Llwynypod, Llandybie, Carmarthenshire

#### FIGURE TITLE

Site location plan

0 1km

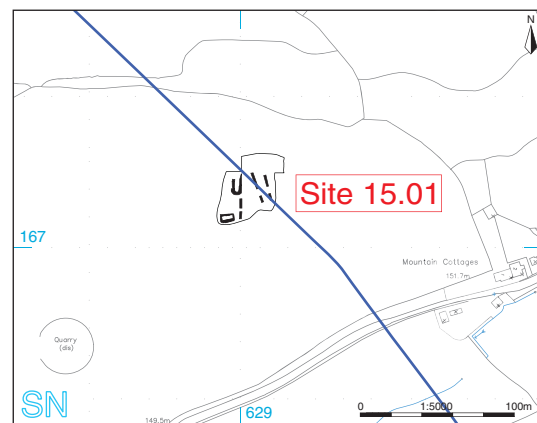
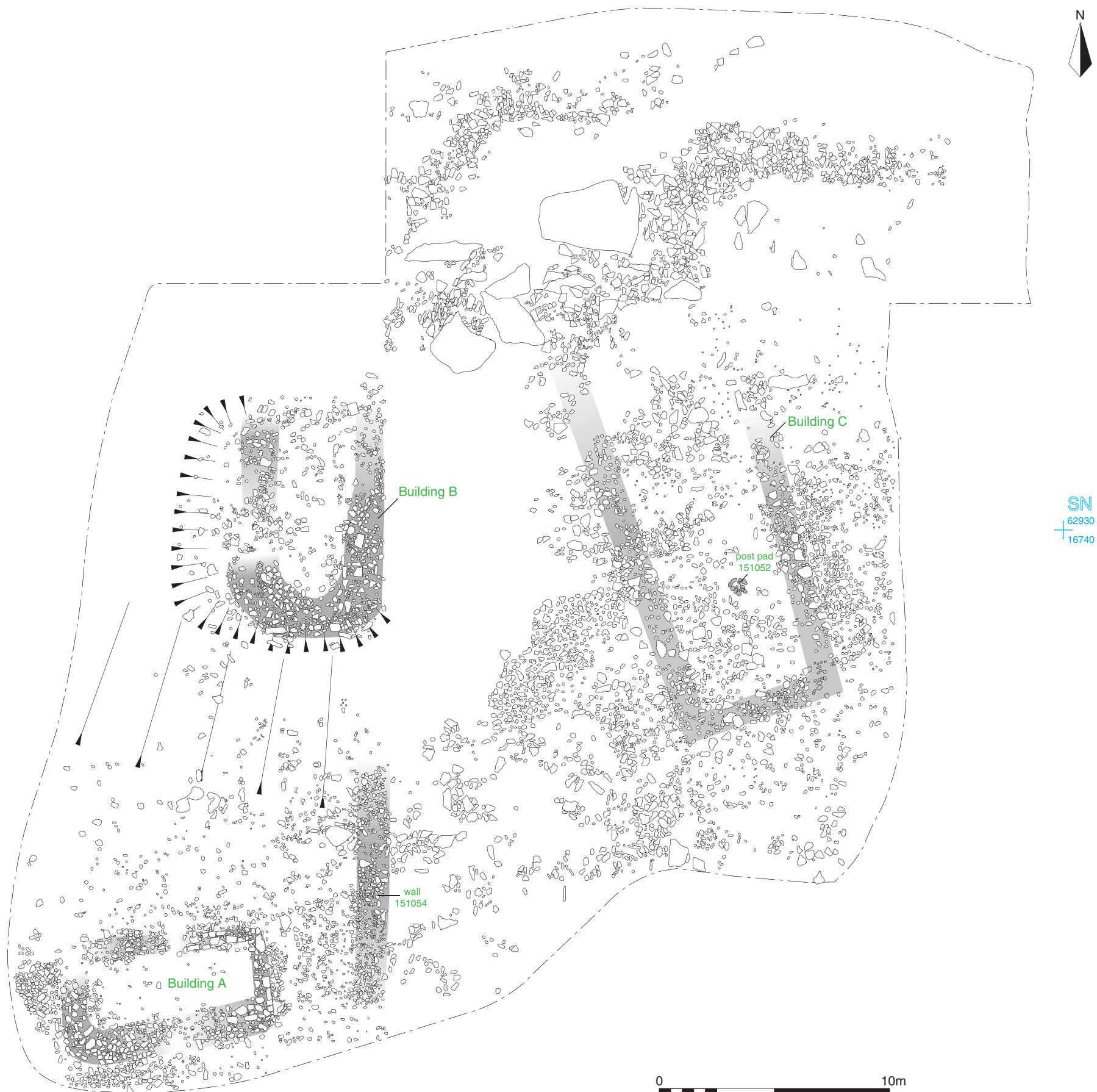
Reproduced from the 2005 Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright Cotswold Archaeology Ltd 100002109

PROJECT NO. 9150 DATE 02-08-2013  
DRAWN BY DJB REVISION 00  
APPROVED BY PJM SCALE@A4 1:25,000

FIGURE NO.

1





— pipeline centreline

(approximate geolocation of site based on a sketch plan contained in the site archive)

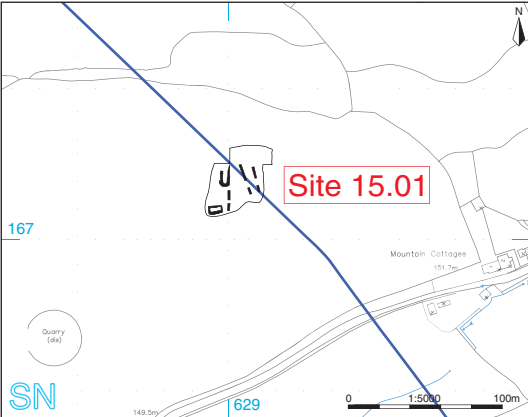
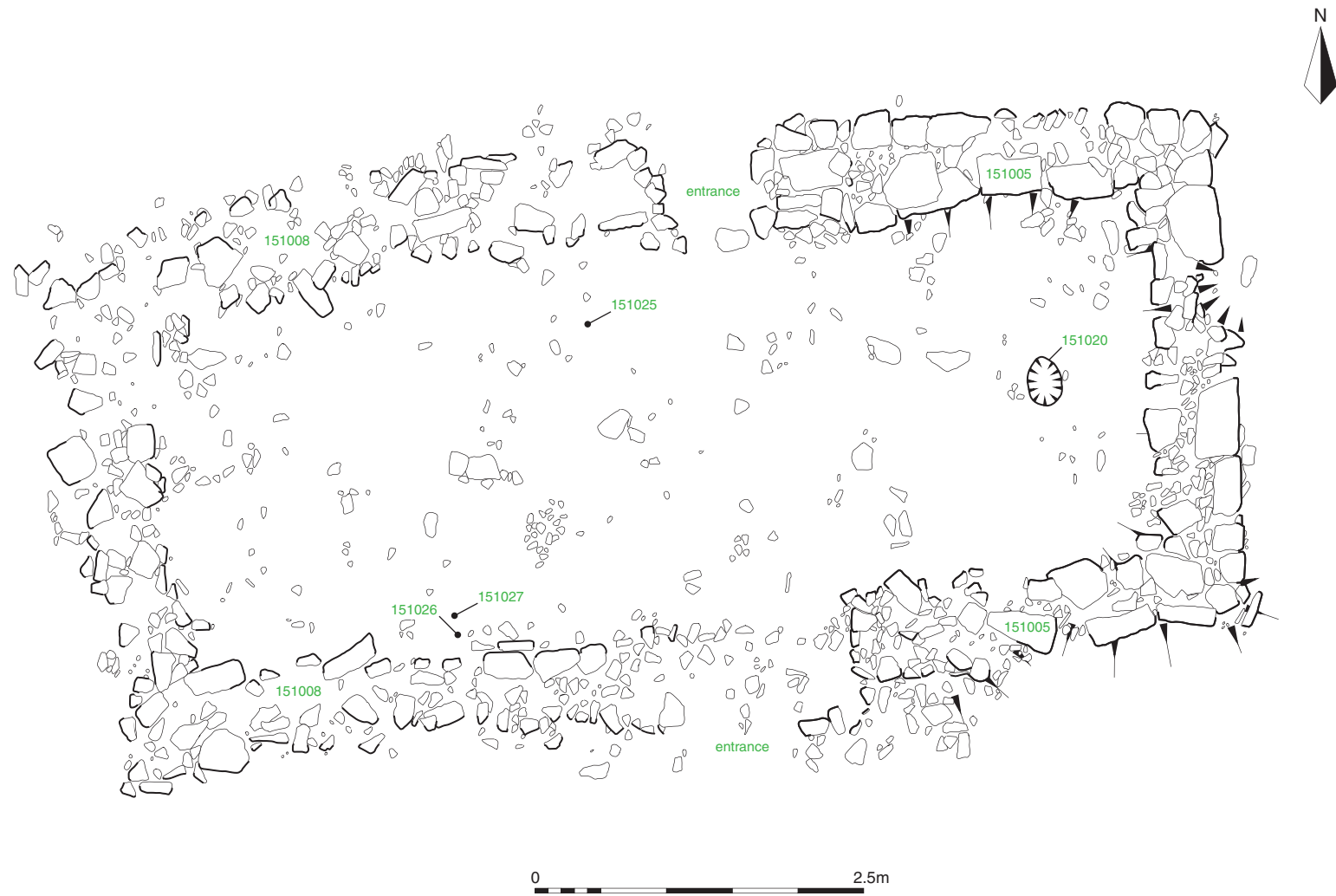
Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office © Crown copyright Cotswold Archaeology Ltd 100002109

 **Cotswold Archaeology**  
Cirencester 01285 771022  
Milton Keynes 01908 218320  
Andover 01264 326549  
w [www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
e [enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

PROJECT TITLE  
South Wales Pipeline. Site 15.01, Land West of Llwynypiod, Llandybie, Carmarthenshire

FIGURE TITLE  
**Plan of archaeological features**

PROJECT NO.	9150	DATE	02-08-2013	FIGURE NO.
DRAWN BY	DJB	REVISION	00	2
APPROVED BY	PJM	SCALE@A3	1:200	



— pipeline centreline

(approximate geolocation of site based on a sketch plan contained in the site archive)

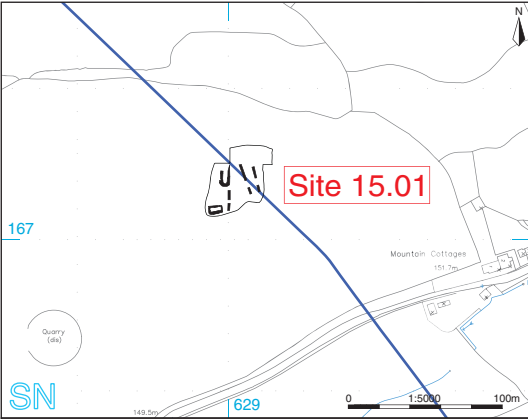
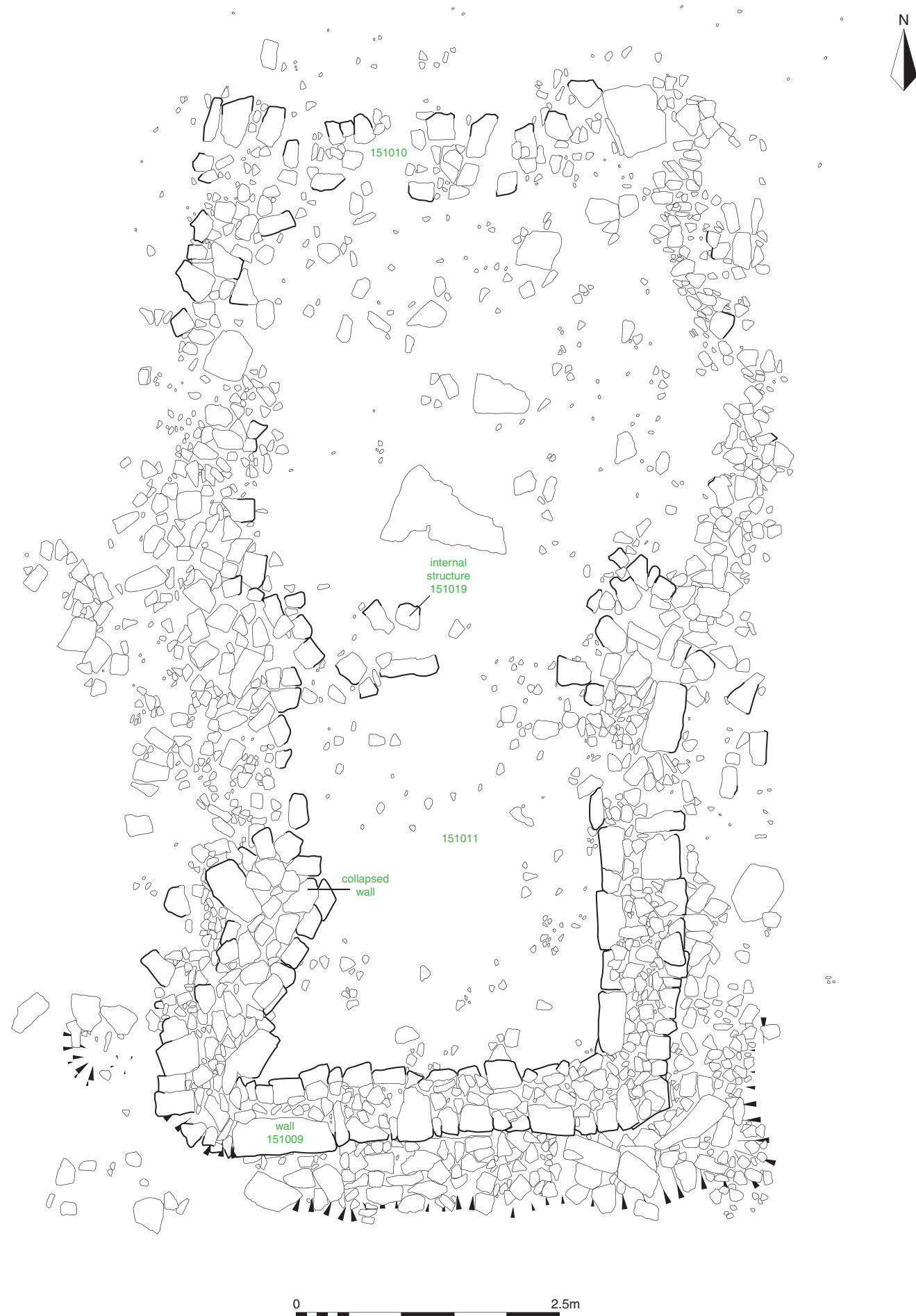
Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright Cotswold Archaeology Ltd 100002109



**Cotswold Archaeology**  
Cirencester 01285 771022  
Milton Keynes 01908 218320  
Andover 01264 326549  
w [www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
e [enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

PROJECT TITLE  
South Wales Pipeline. Site 15.01, Land West of Llwynypiod, Llandybie, Carmarthenshire

FIGURE TITLE  
**Plan of Building A**



— pipeline centreline

(approximate geolocation of site based on a sketch plan contained in the site archive)

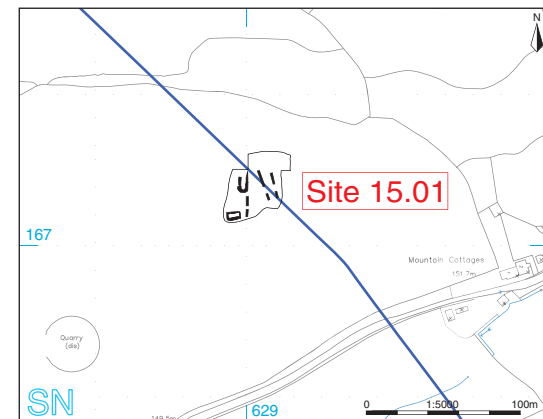
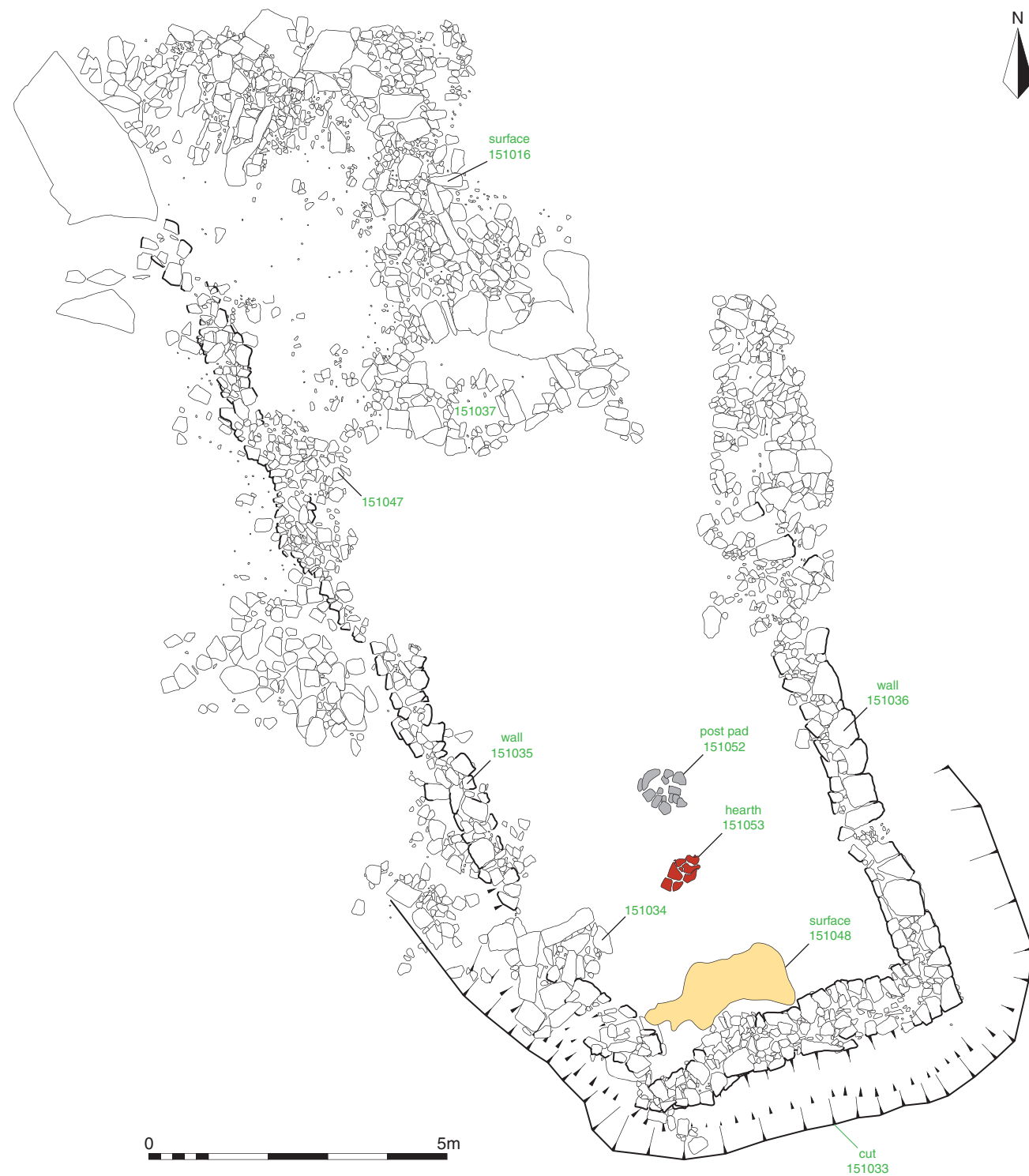
Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright Cotswold Archaeology Ltd 100002109

 **Cotswold Archaeology**  
Cirencester 01285 771022  
Milton Keynes 01908 218320  
Andover 01264 326549  
w [www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
e [enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

PROJECT TITLE  
South Wales Pipeline. Site 15.01, Land West of Llwynypiod, Llandybie, Carmarthenshire

FIGURE TITLE  
**Plan of Building B**

PROJECT NO.	9150	DATE	07-08-2013	FIGURE NO.
DRAWN BY	DJB	REVISION	00	4
APPROVED BY	PJM	SCALE@A3	1:50	



— pipeline centreline

(approximate geolocation of site based on a sketch plan contained in the site archive)

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office  
© Crown copyright Cotswold Archaeology Ltd 100002109

**Cotswold Archaeology**  
Cirencester 01285 771022  
Milton Keynes 01908 218320  
Andover 01264 326549  
w [www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
e [enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

PROJECT TITLE  
South Wales Pipeline. Site 15.01, Land West of Llwynypiod, Llandybie, Carmarthenshire

FIGURE TITLE  
**Plan of Building C**

PROJECT NO.	9150	DATE	07-08-2013	FIGURE NO.
DRAWN BY	DJB	REVISION	00	5
APPROVED BY	PJM	SCALE@A3	1:100	





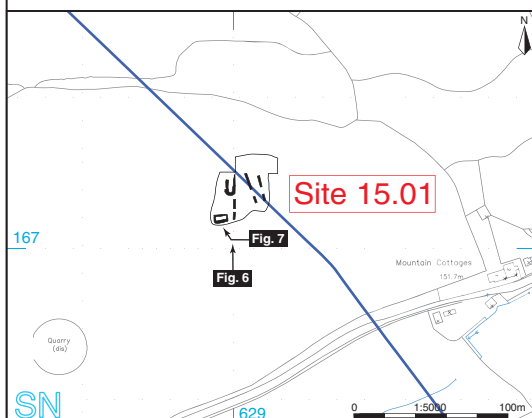
6

General view of western half of the site, looking north with Building A in foreground and Building B to north



7

Building A, looking north-west



— pipeline centreline  
 Fig. 7 photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office © Crown copyright Cotswold Archaeology Ltd 100002109



**Cotswold Archaeology**  
 Cirencester 01285 771022  
 Milton Keynes 01908 218320  
[www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
[enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

#### PROJECT TITLE

South Wales Pipeline. Site 15.01, Land West of Llwynypiod, Llandybie, Carmarthenshire

#### FIGURE TITLE

**Photographs**

PROJECT NO. 9150 DATE 06-01-2016  
 DRAWN BY DJB REVISION 00  
 APPROVED BY LM SCALE@A4 NA

FIGURE NO.  
**6 & 7**





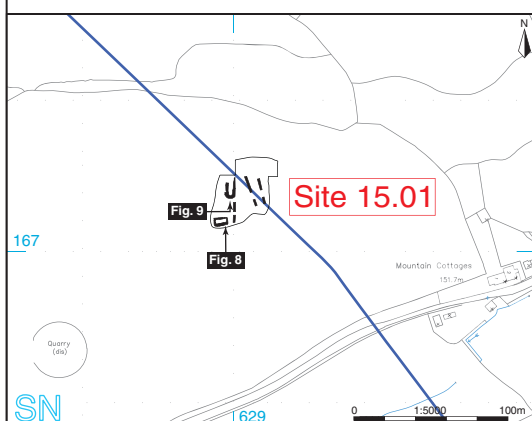
8

Building A, detail shot of eastern end of building, looking north (scales 2m)



9

Building B, looking north (scales 2m)



— pipeline centreline  
 Fig. 2 photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright  
 Cotswold Archaeology Ltd 100002109



**Cotswold  
 Archaeology**

Cirencester 01285 771022  
 Milton Keynes 01908 218320  
[www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
[enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

#### PROJECT TITLE

South Wales Pipeline. Site 15.01, Land West of Llwynypod, Llandybie, Carmarthenshire

#### FIGURE TITLE

**Photographs**

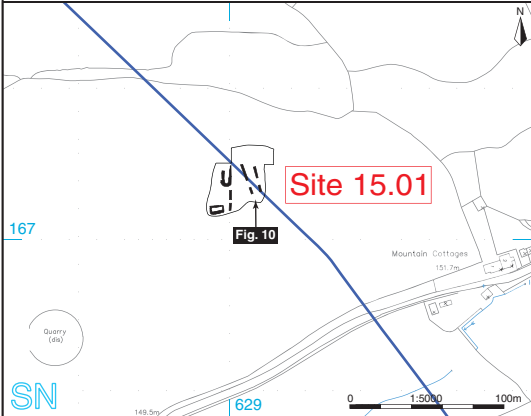
PROJECT NO. 9150 DATE 06-01-2016  
 DRAWN BY DJB REVISION 00  
 APPROVED BY LM SCALE @A4 NA

FIGURE NO.

**8 & 9**



Building C, looking north



— pipeline centreline  
Fig. 10 photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office © Crown copyright Cotswold Archaeology Ltd 100002109



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

PROJECT TITLE  
South Wales Pipeline. Site 15.01, Land West of Llwynypiod, Llandybie, Carmarthenshire

FIGURE TITLE  
Photograph

PROJECT NO.	9150	DATE	06-01-2016	FIGURE NO.
DRAWN BY	DJB	REVISION	00	10
APPROVED BY	LM	SCALE@A4	NA	