

**South Wales Gas Pipeline Project
Site 25.12
Land North-West of Cloglas
Manordeilo and Salem
Carmarthenshire**

Archaeological Watching Brief



for
Rhead Group
on behalf of
National Grid


CA Project: 9150
CA Report: 13269
Event: DAT108807

July 2013

South Wales Gas Pipeline Project Site 25.12

Archaeological Watching Brief

CA Project: 9150
CA Report: 13269
Event: DAT102846

prepared by	Christopher Leonard, Project Supervisor
date	25 July 2013
checked by	Karen E Walker, Post-Excavation Manager
date	30 April 2015
approved by	Martin Watts, Project Director, Head of Publications
signed	
date	
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

Cirencester Building 11 Kemble Enterprise Park Kemble, Cirencester Gloucestershire, GL7 6BQ t. 01285 771022 f. 01285 771033	Milton Keynes Unit 4 Cromwell Business Centre Howard Way, Newport Pagnell MK16 9QS t. 01908 218320	Andover Office 49 Basepoint Business Centre Caxton Close, Andover Hampshire, SP10 3FG t. 01264 326549
e. enquiries@cotswoldarchaeology.co.uk		

CONTENTS

SUMMARY	2
1. INTRODUCTION.....	3
<i>The site</i>	3
<i>Archaeological background</i>	4
<i>Archaeological objectives</i>	4
<i>Methodology</i>	5
2. RESULTS (FIG. 2)	5
3. PROJECT TEAM	7
4. REFERENCES.....	8
APPENDIX A: CONTEXT DESCRIPTIONS	10
APPENDIX B: THE FINDS.....	11

LIST OF ILLUSTRATIONS

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

Fig. 2 Plan and section of archaeological features (1:20 and 1:10)

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 25.12, Land North-West of Cloglas, Manordeilo and Salem, Carmarthenshire
NGR:	SN 6453 2488
Type:	Watching Brief
Date:	27 April–24 May 2007
Location of Archive:	To be deposited with RCAHMW (original paper archive) and Carmarthenshire Museum (digital copy of paper archive; accession number CAASG 2008.0282)
Site Code:	FTP06

An archaeological watching brief 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.

Two phases of activity were identified at the site. The earliest comprised three pits and a small ditch and these were undated and of unknown function. These earlier features were sealed by what seems to have been a yard or building surface for a smithy, found in association with hammerscale. A quernstone fragment added to this surface perhaps formed the base for an anvil. These remains were also undated, but were probably associated with a dump of coal and slag. Coal was used as a smithing fuel during the Roman period and from the 13th century onwards, becoming the primary smithing fuel by the 19th century. Several sherds of post-medieval pottery and various iron objects were recovered from the topsoil.

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 and May 2007 CAP carried out an archaeological watching brief at Site 25.12, Land North-West of Cloglas, Manordeilo and Salem, Carmarthenshire (centred on NGR: SN 6453 2488; 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, 2001c and IfA Wales 2008). The methodologies were laid out in an *Archaeological Framework Document* (RSK 2007) and associated *Written Statements of Investigation* (WSIs) and *Method Statements*.

The site

1.4 The site is located within a field on level ground on the east bank of the River Dulais, 1km north of its confluence with the River Towy (Fig. 1). It lies at approximately 30m AOD. The underlying solid geology of the area is mapped as the Nantmel Mudstone Formation of the Ordovician Period, overlain by superficial deposits of Quaternary Alluvium (BGS 2013).

Archaeological background

- 1.5 No archaeological remains were identified within the site during the preliminary *Archaeology and Heritage Survey* (CA 2006). Archaeological remains are attested in the wider vicinity however. The earliest recorded remains comprise a number of burnt mounds found during the pipeline construction works at Site 26.01, 60m east of Site 25.12, and at Sites 26.02–26.04, 0.7–1.1km north-east of pipeline Site 25.12 (CA 2013a and CA 2014; PRNs 107291, 107293 and 107295). A preceding evaluation identified the remains of an Early Bronze Age hearth close to one of these burnt mounds (CA 2014). Within 430m south-west of Site 25.12, further remains were exposed during the pipeline works at Site 25.08. These comprised part of an undated ring ditch, representing possible the remains of a prehistoric barrow or roundhouse, as well as a ditch and three pits (CA 2013b).
- 1.6 Further afield, an Iron Age defended enclosure lies 1.3km north-west of the site (PRN 849). Roman remains in the vicinity comprise the route of the Roman road, which runs along the Towy Valley between Llandovery and Llandeilo, on the approximate route of the current A40 (PRN 33970). Cropmarks indicate that the road passed within 400m south of the site (ibid.). Later features have also been recorded within the vicinity of the site, including post-medieval and modern buildings, a mill race and a bridge (CA 2006, ref. IDs 1558, 1577, 1561 and 1569; PRNs 20434 and 33970).
- 1.7 An archaeological evaluation in advance of the pipeline construction revealed no archaeological features (CA 2009, Evaluation Site 25.10). The results of the evaluation are included in this report.

Archaeological objectives

- 1.8 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

- 1.9 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).
- 1.10 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, environmental and radiocarbon-dating 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.
- 1.11 The archives from the watching brief and the evaluation are currently held by CA at their offices in Kemble. Subject to the agreement of the legal landowner, the finds 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 (FIG. 2)

- 2.1 This section provides an overview of the results from the evaluation (Site 25.10) and the watching brief (Site 25.12); detailed summaries of the recorded contexts and finds are to be found in Appendices A and B. Full, original versions of the specialist reports are contained within the archive.

Evaluation Site 25.10

- 2.2 No archaeological features were recorded in any of the three evaluation trenches.

Site 25.12

- 2.3 The natural geological substrate, comprising bands of sand, silt and gravel, was cut by three pits and a ditch and was overlain by several surfaces.
- 2.4 Pit 2512015 was oval in plan, 2.2m long, 1m wide and 0.2m deep. It was backfilled with dark brown silt 2512016 which contained charcoal and was capped by stony fill 2512013. South-east of this were two further pits, both sealed by surface 2512002. Pit 2512004 was rectangular in plan, 1.9m long, 1m wide and 0.3m deep, with gently sloping sides and a concave base. Its lower fill (2512019) was a dark silty sand with abundant charcoal, samples from which yielded hammerscale. This lower fill was covered by redeposited clay upper fill 2512018. Pit 2512006 was circular in plan, 0.9m wide and 0.3m deep with steep sides and a concave base. It was backfilled with brown sandy silt 2512007.
- 2.5 Ditch 2512008 was also found beneath surface 2512002 and extended south-westwards from pit 2512006 for a distance of 3.9m before terminating. It was 0.35m wide and 0.25m deep with steep sides and a concave base. Its lower fill (2512010) was a natural infill and was sealed by stony upper fill 2512009.
- 2.6 Pits 2512004 and 2512006 and ditch 2512008 were sealed by make-up deposits for surface 2512002. These make-up layers comprised dark silty sands 2512003, 2512005 and 2512017; samples from layers 2512017 and 2512005 yielded significant quantities of hammerscale. These layers formed the base for surface 2512002, a compact layer of brown-black silty sand. This surface extended beyond the site limits but seems to have been rectangular in plan, 3.8m wide and at least 6.4m long. Part of the surface had been repaired (layers 2512014 and 2512001), suggesting some longevity of use, and repair layer 2512001 included a large quernstone fragment (this was not recovered and no detailed photographs of it were taken). A layer of loose stones and cobbles (2512012) north of surface 2512002 was perhaps the remnant of a second surface and, east of this, a dump of coal and slag was recorded.

Discussion

- 2.7 It was an objective of the UPD to try and date this site because DAT considered that it potentially dated to the early medieval period. Unfortunately, the slag was never located to assess its suitability for dating analysis and this has restricted the following discussion of the site. Two phases of activity were found, the three pits and

ditch being the earliest and the surfaces and dumped layer being the latest. The function of the pits and ditch is not known; although the lower fill of pit 2512004 contained metalworking residue, it is possible that this was either intrusive or represents late infilling and cannot be taken as indicative of the pit's function. These earlier features seemed to have been capped with stone, most likely to consolidate soft areas during the construction of the later surface.

- 2.8 The later surface and associated features were found with hammerscale. Hammerscale is rarely found far from its point of origin, so the presence of significant quantities at Site 25.12 suggests that this was the location of a smithy. It seems likely that surface 2512002 was a work surface for this smithy, perhaps with the quernstone fragment having supported an anvil. The hammerscale is small enough to have intruded into the underlying make up layers and pit fill, so may have originated from work undertaken on this surface. The rectangular shape of surface 2512002 is notable and may suggest that it was either a walled yard surface, or lay within a building of which no further trace survives.
- 2.9 The features on site were undated by finds and the hammerscale is not dateable on typological grounds. The dump of coal and slag was presumably related to this activity however, and coal was used as a smithing fuel both during the Roman period and from the 13th century onwards, becoming the primary fuel by the 19th century (Young 2011). On this basis, Young in the assessment report considered late medieval or post-medieval dating to be likely for the metallurgical remains on this site (ibid.). Several sherds of post-medieval North Devon Gravel Tempered pottery were recovered from the topsoil. Several metal objects were also recovered from the topsoil including a number of iron nails, bars of iron providing the raw material for smithing and other metal objects perhaps intended for re-working.

3. PROJECT TEAM

Fieldwork was undertaken by Cambrian Archaeological Projects. This report was written by Christopher Leonard with comments by Jonathan Hart and illustrations prepared by Daniel Bashford and Anne Leaver. 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.

4. REFERENCES

- BGS (British Geological Survey) 2013 *Geology of Britain Viewer*. Online resource at <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> accessed 11 July 2013
- CA (Cotswold Archaeology) 2006 *Felindre to Tirley Gas Pipeline: Archaeology and Heritage Survey*. CA typescript report **05140**
- CA (Cotswold Archaeology) 2009 *Felindre to Brecon Gas Pipeline: Archaeological Evaluation*. CA typescript report **09079**
- CA (Cotswold Archaeology) 2013a *South Wales Gas Pipeline Project. Site 26.01 Land South-West of Dolau Farm, Manordeilo and Salem, Carmarthenshire: Archaeological Watching Brief*. CA typescript report **13311**
- CA (Cotswold Archaeology) 2013b *South Wales Gas Pipeline Project. Site 25.08 Land South of Brynwgan, Manordeilo and Salem, Carmarthenshire: Archaeological Excavation*. CA typescript report **13276**
- CA (Cotswold Archaeology) 2014 *South Wales Gas Pipeline Project. Sites 26.02, 26.03 and 26.04 Land South of Dolau Farm, Manordeilo and Salem, Carmarthenshire: Archaeological Excavation*. CA typescript report **13279**
- Courtney, P. 2009 'Medieval and Later Pottery', in NLM 2012b
- Doonan, R., Pitman, D. and Broughton, D. 2009 'Metallurgical Residues' 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*
- Leahy, K. 2009 'Metal Objects', in NLM 2021b
- 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 Field Evaluation*
- IfA (Institute for Archaeologists) 2001c *Standard and Guidance for an Archaeological Watching Brief*
- 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*
- RSK (RSKENSr) 2007 *Felindre to Tirley Natural Gas Pipeline: Archaeological Framework*, v7. Nacap Land and Marine Final, RSKENSr Environmental Ltd
- Young, T. P. 2011 'Assessment of the archaeometallurgical residues from the Milford Haven to Brecon High Pressure Gas Pipeline', in NLM 2012b



APPENDIX A: CONTEXT DESCRIPTIONS

Context No.	Fill of	Context interpretation	Description	L (m)	W (m)	Depth (m)
2512001		Surface	Layer of large flat stones	1.7	1.35	0.15
2512002		Surface	Compact brown-black silty sand. Abundant coal dust and charcoal flecks	6.4	3.8	
2512003		Make-up	Bedding layer for 2512001: grey sand and gravel	2.2	1.25	0.1
2512004		Pit	Rectangular in plan; gently sloping sides, concave base	1.9	1.0	0.3
2512005		Make-up	Brown-black silty sand. Abundant coal dust and charcoal flecks	1.9	1.0	0.1
2512006		Pit	Circular in plan; moderately steep sides and concave base		0.9	0.3
2512007	251006	Pit fill	Mid brown sandy silt. Occasional small stones		0.9	0.3
2512008		Ditch	Aligned NE/SW, moderately steep sides, concave base	3.9	0.35	0.25
2512009	2512008	Ditch fill	Upper fill: angular stones	3.2	0.2	0.1
2512010	2512008	Ditch fill	Lower fill: mid brown sandy silt. Occasional small stones	3.9	0.35	0.25
2512011			Context not used			
2512012		Surface	Spread of unbonded medium and large stones	2.0	0.7	
2512013	2512015	Pit fill	Upper fill: small and medium stones	2.0	0.8	0.15
2512014		Surface	Light red-brown sandy clay. Common small stones	2.8	1.7	0.1
2512015		Pit	Oval in plan; gently sloping sides, concave base	2.2	1.0	0.2
2512016	2512015	Pit fill	Lower fill: dark brown silt. Occasional charcoal flecks and small stones	2.2	0.2	0.15
2512017		Make-up	Compact brown-black silty sand. Abundant coal dust and charcoal flecks	2.0	1.05	0.05
2512018	2512004	Pit fill	2nd fill: redeposited yellow-brown sandy clay.	0.7	0.55	0.05
2512019	2512004	Pit fill	Lower fill: brown-black silty sand. Abundant charcoal	0.6	0.5	0.1

APPENDIX B: THE FINDS

U/S = unstratified finds from the topsoil

Metal objects (Leahy 2009)

Context No.	Description	Condition	ID
U/S	Iron nail or pin. Square sectioned shaft, square head.	Covered with corrosion products	Nail or pin
U/S	3 lengths of iron bar rusted together	Corroded	Smith's raw products
U/S	Iron fragment, one end truncated, other expanded	Corroded	Nail head
U/S	Object covered with concretions and a coarse vitreous substance likely to be slag. Attracted by magnet	Covered with concretions	Slag?
U/S	Lump of slag, black, vitreous and vesicular, not attracted by magnet	Good	Slag
U/S	Piece of iron broken in two	Good	Iron scrap
U/S	Iron nail, round shaft, expanded head	Corroded	Nail
U/S	Iron nail, detail hidden by corrosion, square shaft, expanded head	Corroded and covered with concretions	Nail
U/S	Iron nail, detail hidden by corrosion, square shaft, expanded head	Corroded and covered with concretions	Nail
U/S	Small piece of iron concretion	Corroded and covered with concretions	Not known
U/S	Small piece of iron concretion	Corroded and covered with concretions	Not known

Metal Residues (Doonan *et al.* 2009)

Context No.	Description	ID
U/S	Metalworking debris recovered from topsoil	Agglomerate of hammerscale and soil, partially fused
2512005	Make-up	Hammerscale-rich soil
2512017	Make-up	Agglomerate of hammerscale and soil, partially fused
2512018	Fill of pit 2512004	Agglomerate of hammerscale and soil, partially fused

Samples from three contexts (2512005, 2512017 and 2512018) and an unstratified sample were examined. The samples consisted of two types: soil that is hammerscale-rich and, compact, fused agglomerations of hammerscale and soil. Both are indicative of *in situ* smithing since, as hammerscale is small and largely unnoticeable, it rarely moves significant distances from its point of deposition and quickly becomes part of the surrounding soil. The continued build up of hammerscale rich soil supports the suggestion that smithing was carried out in this area.

Pottery (Courtney 2009)

Context No.	Fabric	No. Sherds	Weight (g)	Form	Decoration	Date
U/S	North Devon Gravel Tempered	5	127	Bowls, including rim	-	Post-medieval

