

**LAND AT
ENGINE LONNING,
CARLISLE,
CUMBRIA**



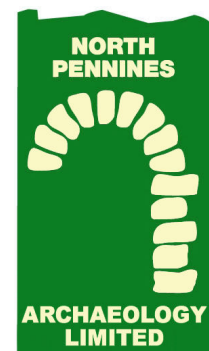
WATCHING BRIEF REPORT

CP. No: 876/09

06/03/2009

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Quality Assurance

This report covers works as outlined in the brief for the above-named project as issued by the relevant authority, and as outlined in the agreed programme of works. Any deviation to the programme of works has been agreed by all parties. The works have been carried out according to the guidelines set out in the Institute for Archaeologists (IfA) Standards, Policy Statements and Codes of Conduct. The report has been prepared in keeping with the guidance set out by North Pennines Archaeology Ltd on the preparation of reports.

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SUMMARY

North Pennines Archaeology Ltd were commissioned by Carlisle City Council (CCC), to undertake an archaeological watching brief on groundworks relating to the excavation of a c.120m long trench for gas extraction on land at Engine Lonning, Carlisle, Cumbria (NGR NY 3830 5630). The works were conducted within an area of high archaeological potential close to the projected course of Hadrian's Wall (SM 28472), which is classified as a World Heritage Site. As a result, Carlisle City Council requested an Archaeological Watching Brief be undertaken during the excavation work.

Following an initial site visit on the 5th February 2009, the Archaeological Watching Brief was undertaken over three days on the 6th, 10th and 12th February 2009. The trench was excavated to a depth of c.3m, over the course of two weeks, with archaeological monitoring visits undertaken as agreed with Carlisle City Council. No archaeological remains were noted during the watching brief.

As this archaeological watching brief was conducted as part of a recommendation to observe groundworks in association with the excavation of a c.120m trench, no further work is deemed necessary. However, given the high archaeological potential of the area, it is recommended that any future work within the vicinity of Hadrian's Wall be subject to a similar programme of archaeological investigation.

ACKNOWLEDGEMENTS

North Pennines Archaeology Ltd would like to thank Michael Crawford of Carlisle City Council for commissioning the project, and for all assistance throughout the work.

North Pennines Archaeology Ltd would also like to extend their thanks to the staff of Cubby Construction for their help during this project.

David Jackson and Nigel Cavanagh undertook the archaeological watching brief. The report was written by David Jackson, who also produced the drawings. The project was managed by Martin Railton, Project Manager for NPA Ltd. The report was edited by Martin Railton.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 In February 2009, North Pennines Archaeology were invited by Michael Crawford of Carlisle City Council, to maintain an archaeological watching brief at Engine Lonning, Carlisle, Cumbria (NGR NY 3830 5630; Figure 1), during groundworks associated with the excavation of a trench for gas extraction. The proposed works lie within the immediate vicinity of the Hadrian's Wall World Heritage Site Buffer Zone. As a result, Carlisle City Council requested that the excavation work be subject to a programme of archaeological observation and investigation. This is in line with government advice as set out in the DoE Planning Policy Guidance on Archaeology and Planning (PPG 16).
- 1.1.2 Archaeological monitoring visits were undertaken during the excavation of the trench as agreed with Carlisle City Council. All stages of the archaeological work were undertaken following approved statutory guidelines (IfA 2002), and generally accepted best practice.
- 1.1.3 This report outlines the monitoring works undertaken on-site, and the results of this scheme of archaeological works.

2 METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 Following an agreement with Carlisle City Council, North Pennines Archaeology Ltd was commissioned to undertake the archaeological work. The work was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA), and generally accepted best practice.

2.2 THE WATCHING BRIEF

2.2.1 The works involved a structured watching brief to observe, record and excavate any archaeological deposits from the development site. A watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons, on a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed (IfA 2002).

2.2.2 The aims and principal methodology of the watching brief can be summarised as follows:

- to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record them;
- to carry out further excavation and recording work in adequate time, if intact archaeological remains are uncovered during the project;
- to accurately tie the area watched by the archaeologist into the National Grid at an appropriate scale, with any archaeological deposits and features adequately levelled;
- to sample environmental deposits encountered as required, in line with English Heritage (2002) guidelines;
- to produce a photographic record of all contexts using colour digital and monochrome formats, each photograph including a graduated metric scale;
- to recover artefactual material, especially that useful of dating purposes;
- to produce a site archive in accordance with MAP2 (English Heritage 1991) and MoRPHE standards (English Heritage 2006).

2.2.3 The linear trench approximated to c.120m². The trench was stripped of topsoil and overburden to the required formation levels. Archaeological

monitoring and supervision of groundworks associated with the stripping commenced on 05/02/2009. A summary of the findings of the watching brief is included within this report.

2.3 THE ARCHIVE

- 2.3.1 A full professional archive has been compiled in accordance with the specification, and in line with current UKIC (1990) and English Heritage Guidelines (1991) and according to the Archaeological Archives Forum recommendations (Brown 2007). The archive will be deposited within The Tullie House Museum, with copies of the report sent to the County Historic Environment Record at Carlisle, Cumbria. The archive can be accessed under the unique project identifier **NPA09 ELC-A, CP 876/09**.
- 2.3.2 North Pennines Archaeology, and Carlisle City Council, supports the **Online AccesS to the Index of Archaeological InvestigationS (OASIS)** project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by North Pennines Archaeology, as a part of this national project.

3 BACKGROUND

3.1 LOCATION AND GEOLOGICAL CONTEXT

- 3.1.1 The proposed development area is located to the west of Carlisle city centre, in the area known as Newtown. The site is bound to the north by the River Eden, whilst The Cumberland Infirmary is located immediately to the east. The areas to the south and west of the site are largely residential. Presently, the development area is largely comprised of woodland, with recreational grassland further north.
- 3.1.2 The broader area to the north and west of Carlisle is known as the Solway Basin and is a broad lowland plain landscape. The Solway Plain is open and exposed to the prevailing southwesterly winds and tree cover is limited. This area is characterised by dairy cattle grazing on fields of improved pasture, which are variously defined by drainage ditches, small streams, low wind-sheared hedgerows and stone-faced hedgebanks or 'kests' (Countryside Commission 1998).
- 3.1.3 Carlisle and the Solway Plain are underlain mainly by mudstones and sandstones of Permo-Triassic age ('New Red Sandstone'). The most important sandstone formation, the St. Bees Sandstone, has been much quarried for use as building stone in and around Carlisle. To the west of Carlisle poorly exposed Liassic mudstones and limestones, of Jurassic age, overlie the Permo-Triassic rocks (Countryside Commission 1998).

3.2 HISTORICAL CONTEXT

- 3.2.1 *Introduction:* this historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments specific to the study area.
- 3.2.2 *Prehistoric Period (pre c. AD 43):* there is extensive evidence for prehistoric activity within and around Carlisle, including the remains of prehistoric ploughing at Blackfriars Street and Lowther Street. Neolithic and Bronze Age pottery was found at Scotby Road, including Grooved Ware and Beaker pottery, and a collared urn and burnt mound were excavated at Garlands Hospital (Perriam 1992, 3). Flints of Neolithic and Bronze Age date have also been found, and two socketed Late Bronze Age axes were found at Kings Meadow, Stanwix (SMR No. 525). Evidence of prehistoric activity was also found at the Cumberland Infirmary, immediately east of the present study area (Reeves & Zant 2001).

- 3.2.3 **Romano-British Period:** Roman occupation of Carlisle is first indicated by the presence of a turf and timber fort. This fort, dating to the early seventies AD, was possibly centred on the present Castle Green east of the proposed works. This fort predates the later much richer Roman town of *Luguvalium*, and was post-dated by another fort across the Eden in the Stanwix area. At that time the Romans established a fort at the northern end of the present city centre, and this quickly expanded to become a substantial civilian settlement over 40 acres in area. The withdrawal by the Romans from Scotland in the AD 80's, and the building of Hadrian's Wall from AD 122, probably had a substantial impact on the settlement.
- 3.2.3 The Wall was a composite military barrier, which in its final form comprised several separate elements; a stone wall fronted by a V-shaped ditch, and a number of purpose-built stone garrison fortifications such as forts, milecastles and turrets. To the south, a large earthwork and ditch, known as the Vallum was built parallel to the Wall, as well as a metalled supply road linking the garrison forts, known as the 'Roman Military Way'. The Wall began in the east, at Wallsend in Tyneside and continued to the west terminating at Bowness-on-Solway in Cumbria, a distance of 80 Roman miles (73.5 English miles or 117 kilometres). The Wall, conceived by Hadrian was to be 10 feet wide and c.15 feet high. The front face of the wall most likely sported a crenulated parapet, behind which the soldiers patrolled along a paved rampart-walk (Bedoyere, 1998).
- 3.2.4 By c.AD 200 Carlisle, known as Luguvalium, seems to have been granted special status, and it continued to flourish, with a large number of houses, shops, administrative and other public buildings, until the end of the Roman occupation around AD 400.
- 3.2.5 The Roman roads which have been located through archaeological investigation may not form the total extent of the traffic system as seen by the discovery of the street found at Tullie House which failed to fit into any grid system yet devised. This suggests the Roman civil town had a different alignment to the earlier fort. Evidence for the existence of a post 2nd century ditch may relate to urban defences of the Roman civil town. The uncovering of the Roman cemeteries outside the civil town boundaries indicates that Roman Carlisle was similar in size to its medieval counterpart (Ferguson, 1890: 365-374).
- 3.2.6 **Medieval and Post-Medieval Periods:** following the withdrawal of the Legions in the early part of the 5th century, Carlisle probably continued to be occupied, and it housed an important monastic community from the 7th century. The arrival of the Normans in 1092 heralded a period of major change, during which walls enclosed the city. Throughout the Middle Ages and up to the Jacobite rebellion in 1745, Carlisle was a major frontier city on

the borders of England and Scotland. Throughout this period, the study area was always outside the limits of settlement, with no evidence of any intensive use until modern development encroached upon the area.

3.3 PREVIOUS WORK

- 3.3.1 There has been no previous archaeological work undertaken within the study area. However, extensive archaeological work has been undertaken in Carlisle, with several studies in the vicinity of the present site.
- 3.3.2 Throughout the 1990's Carlisle Archaeology Limited (formerly Carlisle Archaeological Unit) undertook a series of archaeological investigations at the Cumberland Infirmary site in advance of redevelopment. Open area excavations took place in 1992 and 1997, yet despite the 5-year gap the excavated areas were contiguous and formed, in effect, one large site covering approximately 3900m² (Reeves and Zant 2001). This work uncovered the remains of prehistoric and Romano-British settlement.
- 3.3.3 There have been a number of archaeological investigations within the area defined as the City of Carlisle Hazard Area (SMR No. 3560) to the southeast of the site. These include major excavations at The Lanes (McCarthy, 2000, McCarthy, Padley and Henig, 1982); Botchergate (Zant, 1997, Giocco, 2001, Lancaster University Archaeology Unit, 2001); and the millennium excavations on Castle Green conducted during 1998-2001 (Zant, 2004).

4 ARCHAEOLOGICAL WATCHING BRIEF

4.1 INTRODUCTION

4.1.1 The watching brief monitoring was undertaken over three days, on the 6th, 10th and 12th February 2009. The work comprised the excavation of a c.120m long trench (Figure 2) which was only partially monitored over the three days. All excavation work was carried out by a Komatsu 240 LC mechanical excavator with a 0.8m wide ditching bucket.

4.2 RESULTS

4.2.1 The work comprised the excavation of a c.1m wide gas trench to a depth of c.3m (Plate 1). The trench was aligned east-southeast to west-northwest, and exposed c.2.4m of natural orange/brown boulder clay (101) below a c.0.2m deposit of mid-grey/brown silty clay subsoil (102), which was sealed by c.0.4m of loamy topsoil (100) (Plate 2). The exposed deposits were consistent throughout the monitored sections of the trench.

4.2.2 No archaeology was noted during the watching brief, although numerous surface finds suggest that an unmonitored section of the excavation had disturbed a modern rubbish tip at the western extremity of the trench.

4.3 ARCHAEOLOGICAL FINDS AND ENVIRONMENTAL SAMPLING

4.3.1 No archaeological finds were recovered, and no environmental samples were retained during the groundworks.



Plate 1: View east along gas trench



Plate 2: South facing section of gas trench

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

- 5.1.1 The works associated with excavation of the trench for gas extraction were monitored on three separate occasions during the watching brief. The excavated trench was primarily comprised of a thick deposit of natural boulder clay below sub soil and rich loamy topsoil associated with the surrounding woodland.
- 5.1.2 The watching brief results suggest that the study area may have been woodland for some time prior to the encroachment of the modern city of Carlisle. However, it cannot be assumed that the surrounding area was not extensively utilized in the past given the rich history of the area and the location of the Roman Military Zone.
- 5.1.3 No archaeological remains were noted during the watching brief.

5.2 RECOMMENDATIONS

- 5.2.1 As this watching brief was conducted as a condition of groundworks associated with the excavation of a trench for gas extraction within a proposed area of woodland, no further archaeological work is deemed necessary. However, given the site's location in relation to the Hadrian's Wall World Heritage Site Buffer Zone, it is recommended that any work conducted in the future be subject to a similar programme of archaeological investigation.

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APPENDIX 1: CONTEXT TABLE

Context Number	Context Type	Description
100	Deposit	Topsoil
101	Deposit	Natural Boulder Clay
102	Deposit	Subsoil

Table 1: List of Contexts issued during Watching Brief

APPENDIX 2: FIGURES
