ENERGY AND CLIMATE CHANGE ENVIRONMENT AND SUSTAINABILITY INFRASTRUCTURE AND UTILITIES LAND AND PROPERTY MINING AND MINERAL PROCESSING MINERAL ESTATES WASTE RESOURCE MANAGEMENT

WILLAN HOMES AND DEVELOPMENTS

LAND NORTH OF HELM BAR MELMERBY PENRITH CUMBRIA

ARCHAEOLOGICAL EVALUATION REPORT

DECEMBER 2018

wardell-armstrong.com





DATE ISSUED:	December 2018	
JOB NUMBER:	CL12218	
SITE CODE:	HEL-A	
OASIS REFERENCE:	wardella2-336070	
PLANNING APPLICATION RE	F: 3/17/0509 and 3/18066	55
REPORT VERSION NUMBER:	001	
Willan Homes and Developr	nents	
Land North of Helm Bar, Me	lmerby, Penrith, Cumbria	
Archaeological Evaluation R	eport	
PREPARED BY:		
Kevin Mounsey	Supervisor	Kevin Mourser
REVIEWED BY:		
Dave Jackson	Project Manager	19 and
APPROVED BY:		
Chris Rigby	Service Area Director	056
		\smile

This report has been prepared by Wardell Armstrong LLP with all reasonable skill, care and diligence, within the terms of the Contract with the Client. The report is confidential to the Client and Wardell Armstrong LLP accepts no responsibility of whatever nature to third parties to whom this report may be made known.

No part of this document may be reproduced without the prior written approval of Wardell Armstrong LLP.



CONTENTS

SUMM	ARY1
ACKNC	WLEDGEMENTS2
1 IN	TRODUCTION
1.1	Project Circumstances and Planning Background3
1.2	Project Documentation3
2 ME	THODOLOGY4
2.1	Standards and Guidance4
2.2	Documentary Research4
2.3	The Field Evaluation4
3 BA	CKGROUND6
3.1	Location and Geological Context6
3.2	Historical Context6
3.3	Previous Work7
4 AR	CHAEOLOGICAL EVALUATION RESULTS8
4.1	Introduction8
4.2	Results8
5 FIN	IDS10
5.1	Introduction10
5.2	Metal10
5.3	Ceramics11
5.4	Glass
5.5	Conclusion11
6 CO	NCLUSIONS13
6.1	Interpretation13
7 BIE	LIOGRAPHY14
APPEN	DIX 1: TRENCH DESCRIPTIONS
APPEN	DIX 2: PLATES
APPEN	DIX 3: FIGURES21



PLATES (APPENDIX 2)

Plate 1: Trench 1, facing north, 1m x 1m scales	18
Plate 2: Trench 2, facing north, 1m x 1m scale	18
Plate 3: Trench 2, facing east, section with 1m scale	19
Plate 4: Trench 3, facing north-east, 1m scale	19
Plate 5: Trench 4, facing north-east, 1m scale	20
Plate 6: Trench 5, facing north, 1m x 1m scales	20

FIGURES (APPENDIX 3)

Figure 1: Site Location

Figure 2: Trench Location Plan



SUMMARY

Wardell Armstrong LLP (WA) was commissioned by Willan Homes and Developments, to undertake an archaeological evaluation by trial trenching at land north of the property Helm Bar, Melmerby, Penrith, Cumbria (NGR: NY 61530 37600). The evaluation was required as a condition of planning consent required by Eden District Council (Condition 5 to permission 3/17/0509). The evaluation was undertaken in accordance with a written scheme of investigation (WSI) produced in response to a brief prepared by Jeremy Parsons, Cumbria County Council Historic Environment Service (CCCHES).

The archaeological work was undertaken during November 2018 and comprised the excavation five 15m trenches. The investigation revealed no archaeological features. The topsoil and subsoil deposits were at varying depths and it is believed that at some time in the past some levelling work in the field had been carried out. The natural substrate consisted of a stony gravel with some red sandstone elements within it.

Metal detecting of the trench spoil recovered metal items associated with agricultural activity including a plough share. Three copper alloy buttons, all with designs, were also recovered. These have been ascribed an 18th to early 19th century date.



ACKNOWLEDGEMENTS

Wardell Armstrong LLP (WA) thanks Willan Homes and Developments for commissioning the project and in particular, Jonathan Willan for all his assistance throughout the work. Also, WA thank Jeremy Parsons (CCCHES) for his assistance.

The evaluation was undertaken by Laura Caygill-Lowery and Margarita Dagla under the supervision of Kevin Mounsey, who also wrote the report. The figures were produced by Helen Phillips and the finds assessment was undertaken by Sue Thompson. The project was managed by David Jackson who also edited the report.



1 INTRODUCTION

1.1 **Project Circumstances and Planning Background**

- 1.1.1 In November 2018, Wardell Armstrong LLP (WA) undertook an archaeological evaluation on land to the north of Helm Bar, Melmerby, Penrith Cumbria (NGR: NY 61530 37600). It was commissioned by the Client who intends to construct five residential properties on the site for which planning consent has been granted subject to a scheme of archaeological work being undertaken on the site (Eden District Council, Condition 5 to permission 3/17/0509).
- 1.1.2 Based on a previous desk-based assessment (Eden Valley Archaeology 2014), the site is believed to lie in a former burgage plot of the medieval village of Melmerby which has 12th or 13th century origins, the heritage significance of which may be affected by the application.

1.2 **Project Documentation**

- 1.2.1 The project conforms to a brief prepared by Jeremy Parsons, dated 31 October 2018 (CCCHES 2018). This outlined the archaeological investigation required on the site, comprising five linear trial trenches covering an area of 120m². A WSI (WA 2018a) was then produced to provide a specific methodology based on the brief for a programme of archaeological trial trench evaluation. This was approved by Jeremy Parsons (CCCHES) prior to the fieldwork taking place. This is in line with government advice as set out in Section 16 of the National Planning Policy Framework (NPPF 2018).
- 1.2.2 This report outlines the work undertaken on site, the subsequent programme of post-fieldwork analysis, and the results of this scheme of archaeological evaluation.



2 METHODOLOGY

2.1 Standards and Guidance

- 2.1.1 The archaeological evaluation was undertaken following the Chartered Institute for Archaeologists *Standard and Guidance for archaeological field evaluation* (2014a), and in accordance with the WA fieldwork manual (2017b).
- 2.1.2 The fieldwork programme was followed by an assessment of the data as set out in the Standard and Guidance for archaeological field evaluation (CIfA 2014a) and the Standard and Guidance for the collection, documentation, conservation and research of archaeological materials (CIfA 2014b).

2.2 Documentary Research

2.2.1 An archaeological desk-based assessment (DBA) was prepared in 2014, which set out the archaeological and historical background of the site. (Eden Valley Archaeology 2014). The DBA suggested that the development area lay within a former burgage plot associated with the medieval village of Melmerby.

2.3 The Field Evaluation

- 2.3.1 The evaluation comprised the excavation of five trenches, each measuring 15m in length and 1.8m in width, covering 120m² of the site. The trenches were placed using a random grid array and were located within the footprint of the proposed development area. The general aims of these investigations were:
 - to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record these where they were observed;
 - to establish the character of those features in terms of cuts, soil matrices and interfaces;
 - to assess the impact of the application on the archaeological site;
 - to recover artefactual material, especially that useful for dating purposes;
 - to recover palaeoenvironmental material where it survives in order to understand site and landscape formation processes.
- 2.3.2 Deposits considered not to be significant were removed by a tracked mechanical excavator with a toothless ditching bucket, under close archaeological supervision. The trial trenches were subsequently cleaned by hand.



- 2.3.3 All finds encountered were retained on site and returned to the Carlisle office where they were identified, quantified and dated to period. On completion of the fieldwork, the finds were cleaned and packaged according to standard guidelines. Please note, the following categories of material will be discarded after a period of six months following the submission of this report, unless there is a specific request to retain them (and subject to the collection policy of the relevant depository):
 - modern material;
 - material that has been assessed as having no obvious grounds for retention.
- 2.3.4 The evaluation trenches were reinstated by replacing the excavated material.
- 2.3.5 A full professional archive has been compiled in accordance with the project specification, and the Archaeological Archives Forum recommendations (Brown 2011). The archive will be deposited with Cumbria County Council Archive Centre, Carlisle, with copies of the report sent to the Cumbria County Council Historic Environment Record (HER) Kendal, available upon request. The archive can be accessed under the unique project identifier WA18/CL12218/HEL-A.
- 2.3.6 Wardell Armstrong LLP supports the **O**nline **A**cces**S** to the Index of Archaeological Investigation**S** (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 WA as a part of this national project. The OASIS reference for the project is: **wardella2- 336070**.



3 BACKGROUND

3.1 Location and Geological Context

- 3.1.1 The development site is located immediately to the north of the property Helm Bar situated on the north side of the village of Melmerby (NGR NY 61530 37600), at the base of the western flank of the North Pennines. Immediately to the north and adjacent to the development area is an area of land currently undergoing residential development. To the east of the site, the A686 road runs from Penrith to Alston over the Hartside pass, whilst to the immediate west the site is bounded by a minor country road and a caravan park (Figures 1 and 2).
- 3.1.2 The bedrock geology of the area is mapped as Sandstone of the St Bees Sandstone Member, a sedimentary bedrock formed approximately 247 to 252 million years ago in the Triassic Period (BGS 2018).

3.2 Historical Context

- 3.2.1 This is intended as a brief summary of the historical development within the vicinity of the proposed development site only. No research element was required as part of this project.
- 3.2.2 The land immediately to the north of Helm Bar, situated within the perceived bounds of the medieval village, is located in an area of archaeological potential. The linear form of fields to the rear of some of the properties in the village suggest that it may have been the site of a medieval tenement.
- 3.2.3 Melmerby is believed to have been a planned settlement dating to the 12th or 13th century, possibly with roots in the early medieval period (North Pennines Archaeology 2005).
- 3.2.4 Place-name evidence suggests a medieval origin for Melmerby coming from old Scandinavian 'Melmor' and 'by', meaning farmstead or hamlet of an individual called Melmor (Eden Valley Archaeology 2014).
- 3.2.5 There are several known medieval sites in the vicinity of the proposed development. The two most notable are Melmerby Hall and the Church of St John the Baptist. Both are situated to the south west of Helm Bar. The current Melmerby Hall is of 17th -18th century date but an earlier 13th century building is known to have existed. The Church of St John the Baptist also has medieval origins with parts of the 13th century



building surviving in the current structure.

- 3.2.6 There is limited prehistoric evidence in the vicinity of the proposed development area. This is located on the summit of Tortree Hill *c*.350m north of Helm Bar and comprises a ditched feature, which may represent a hilltop enclosure, with earthworks on its southern side (WAA 2012a).
- 3.3 **Previous Work**
- 3.3.1 An evaluation at Townhead Farm, Melmerby was undertaken by Oxford Archaeology North in 2003. No archaeological features were found to pre-date the post-medieval period, with the exception of two undated linear features, the purpose and date of which were unresolved (OAN 2003).
- 3.3.2 North Pennines Archaeology Ltd completed a rapid desk-based assessment, a field evaluation and a watching brief at Church Lane, Melmerby. Insufficient evidence was found to accurately date a north-south aligned ditch and a possible wall foundation during the evaluation. A fire pit of unknown date was found during the watching brief (NPA 2005, 2006, 2007).
- 3.3.4 A watching brief was undertaken by Wardell Armstrong Archaeology at land adjacent to Park View, Melmerby by Wardell Armstrong Archaeology in 2012, which followed a rapid desk-based assessment of the area. No archaeological features were found (WAA 2012a).
- 3.3.5 A desk-based assessment and archaeological evaluation of land at Melmerby Hall undertaken by Wardell Armstrong Archaeology in 2012 revealed a cobbled surface of probable post-medieval date (WAA 2012b).
- 3.3.6 A desk-based assessment was carried out by Eden Valley Archaeology in 2014 immediately to the south of the proposed development site, which has suggested that the development area lay within a former burgage plot associated with the medieval village (Eden Valley Archaeology 2014).
- 3.3.7 In January 2018 WA carried out a trial-trench archaeological evaluation in the field immediately adjacent to and north of the proposed development area (WA 2018b). No archaeological features were encountered during the investigation.



4 ARCHAEOLOGICAL EVALUATION RESULTS

4.1 Introduction

4.1.1 The evaluation was undertaken during November 2018 and comprised the excavation of five 15m trenches across the proposed development site (Figure 2). The trenches were placed within the areas most affected by the proposed development.

4.2 Results

- 4.2.1 **Trench 1 (Figure 2, Plate 1)** was situated in the north-western section of the site and was orientated north-northwest to south-southeast. The trench measured 15m in length and 1.8m in width. It had a minimum depth of 0.45m and maximum depth of 0.65m. The natural substrate (101) consisted of mid-grey and brown stone and gravel and was overlain by a 0.16m thick deposit of light orange brown silty gravel subsoil (102). The trench was sealed by a dark brown silty topsoil (100).
- 4.2.2 The archaeological finds within Trench 1, comprised post-medieval pottery and iron finds, as well as two copper alloy buttons. The trench was devoid of any archaeological or modern features.
- 4.2.3 **Trench 2 (Figure 2, Plates 2 and 3)** was aligned north-northwest to south-southeast and was situated in the south-west section of the site. The trench measured 15m in length and 1.8m in width. Trench 2 was excavated to a minimum depth of 0.3m and a maximum depth of 0.75m. The natural geology **(201)** within Trench 2 comprised a mixture of mid-grey and brown gravel. This was sealed by a 0.25m thick deposit of dark brown silty topsoil **(200)**.
- 4.2.4 Finds within this trench comprised iron objects and bottle glass. The trench was devoid of any archaeological or modern features.
- 4.2.5 **Trench 3 (Figure 2, Plate 4)** was situated in the northern section of the site, to the east of Trench 1. The trench measured 15m in length and 1.8m in width and had a maximum depth of 0.4m. The natural substrate **(301)** consisted of a mixture of grey brown gravel, with red sandstone and blue/grey boulders. This was covered by a 0.26m thick layer of dark brown silty topsoil **(300)**.
- 4.2.6 Sherds of post-medieval pottery and iron objects were recovered from the trench. The trench was devoid of any archaeological or modern features.



- 4.2.7 **Trench 4 (Figure 2, Plate 5)** was located within the south-central section of the site, to the east of Trench 3 and the west of Trench 5, on a north-west to south-east alignment. The trench measured 15m in length and 1.8m in width, with a minimum depth of 0.7m and a maximum depth of 1.2m. The natural substrate **(401)** comprised a light orange brown gravel, which was overlain by a mid-orange brown silty clay **(402)**. This layer was sealed with a dark brown silty topsoil **(400)**.
- 4.2.8 A bronze button, as well as iron objects and post-medieval pottery were recovered from the trench. The trench was devoid of any archaeological or modern features.
- 4.2.9 **Trench 5 (Figure 2, Plate 6)** was situated within the eastern section of the site. The trench was aligned north-west to south-east, and measured 15m in length and 1.8m in width. It was excavated to a minimum depth of 0.65m and a maximum depth of 0.8m. The natural substrate (501) consisted of a light orange brown silt with small stone inclusions. This was sealed by a light brown silt subsoil (502), which was further below a dark brown silty topsoil (500).
- 4.2.10 Part of an iron plough share was encountered within the trench. The trench was devoid of any archaeological or modern features.



5 FINDS

5.1 Introduction

- 5.1.1 A total of 31 artefacts, weighing 1894g, were recovered from all five trenches, although most of the artefacts were recovered from unstratified deposits (Table 1). A further three finds weighing 6g were recorded as Small Finds (Table 2). The finds are in moderate to poor condition. the metal was heavily corroded, while the pottery and glass show signs of post depositional damage.
- 5.1.2 All finds were dealt with according to the recommendations made by Watkinson & Neal (1998) and to the Chartered Institute for Archaeologists (CIfA) Standard & Guidance for the collection, documentation, conservation and research of archaeological materials (2014b). All artefacts have been boxed according to material type and conforming to the deposition guidelines recommended by Brown (2011).
- 5.1.3 The finds assessment was compiled by Sue Thompson. Quantification of finds by context is provided in Tables 1 and 2.
- 5.2 Metal
- 5.2.1 A total of 21 metal finds, weighing 1,889g, were recovered from all five trenches, and include iron, copper alloy and lead.
- 5.2.2 The iron artefacts comprise a range of handmade and mass-produced nails, and modern agricultural items including the tip of a ploughshare and the possible point of a harrow. Although it is difficult to date handmade nails as they were made in a similar fashion throughout the Roman and medieval periods, these objects are likely to have been locally made and post-medieval to modern in date.
- 5.2.3 Other metal finds include a copper alloy furniture drawer fitting with a screw thread, and a miscellaneous lead fragment. Both are of post-medieval to modern date.
- 5.2.4 Three small copper alloy buttons were recovered as small finds. **SF1** is a hollow button with raised floral motif, while **SF2** contained an incised motif. **SF3** is a small domed button with a raised border. All three of the buttons are in moderate condition and are of 18th to early 19th century date (Bailey 2004).
- 5.2.5 No further analysis is required on the metal finds.



5.3 Ceramics

- 5.3.1 Nine sherds of pottery, weighing a total of 72g, were recovered from Trenches 1, 3 and 4. The pottery is in moderate to poor condition and shows signs of post-depositional damage, likely caused by ploughing.
- 5.3.2 The pottery sherds comprise fragments of utilitarian household vessels including glazed red earthenware and refined white tablewares. The brown glazed red earthenwares are typical of locally-made country wares which includes a fragment of a storage jar and pancheon (mixing bowl). The refined whitewares were mass-produced tablewares from the 19th and 20th centuries. The pottery is typical of late post-medieval assemblages and likely dates to between the 18th and 20th centuries (Casella and Croucher 2010).
- 5.3.3 No further work is required on the ceramic finds.
- 5.4 Glass
- 5.4.1 A single shard of clear glass was recovered from Trench 2, weighing 5g. The glass is a likely fragment of sauce bottle dating to the 20th century and is in good condition.
- 5.4.2 No further work is required on the glass fragment

5.5 Conclusion

- 5.5.1 The finds assemblage recovered during the recent archaeological evaluation is typical of late post-medieval to modern material recovered from rural settlements and is a mix of agricultural and household items dating from the 18th to 20th century. The buttons are probably the results of casual loss.
- 5.5.2 As the finds were not recovered from stratified deposits, they are of little archaeological interest and will not be retained with the archive.

Trench	Context	Qty	Wgt (g)	Material	Date	Comments	
1	U/S	2	55	Iron	PM-Modern	Highly corroded, Wire and bolt	
1	U/S	1	5	Cu Alloy	PM-Modern	Furniture fitting - screw thread	
					18th-19 th	Glazed red earthenware and refined white	
1	U/S	4	57	Ceramic	century	earthenware	
2	U/S	9	35	Iron	PM-Modern	Handmade and mass produced nails, Handle?	
2	U/S	1	5	Glass	20th century	Sauce bottle? Clear glass	
3	U/S	3	186	Iron	PM-Modern	Harrow spike? Nail and unidentified fragment	
					19th-20th		
3	U/S	1	7	Ceramic	century	Transfer printed dish - Willow pattern	
4	U/S	2	6	Iron	PM-Modern	Handmade nails	



					19th-20th	
4	U/S	4	8	Ceramic	century	Refined white earthenware , handpainted bowl
5	U/S	3	1503	Iron	20th century	Nails, Ploughshare. Corroded
5	U/S	1	27	Lead	PM-Modern	Fragment
Total		31	1894			

Table 1: Quantification of Bulk Finds

Trench	Context	Small Find	Qty	Wgt (g)	Material	Date	Comments
1	402	1	1	3	Cu Alloy	18th-19th century	Hollow button - raised floral design
1	U/S	2	1	2	Cu Alloy	18th-19th century	Flat button - engraved front
1	U/S	3	1	1	Cu Alloy	18th-19th century	Small domed button - raised border
Total			3	6			

Table 2: Quantification of Small Finds



6 CONCLUSIONS

6.1 Interpretation

- 6.1.1 During the archaeological field evaluation on land north of Helm Bar, Melmerby, five trenches were excavated within a single field, covering approximately 120m² of the proposed 0.427ha development area. The purpose of the evaluation was to establish the nature and extent of below ground archaeological remains within the vicinity, the evaluation trenches being located to target areas most affected by the proposed development.
- 6.1.2 All trenches were excavated by machine down to the top of the natural substrate.
- 6.1.3 All five of the trenches were devoid of archaeological features and deposits.
- 6.1.4 A small assemblage of post-medieval finds was recovered during the evaluation, including pottery, copper alloy buttons and various iron objects. It is likely that the recorded finds relate to household and agricultural activity within the area. As the finds were not recovered from stratified deposits, they are of little archaeological interest and will not be retained with the archive.



7 BIBLIOGRAPHY

Secondary Sources

Bailey, G. 2004, Buttons and Fasteners 500BC-AD1840, Greenlight Publishing.

Brown, D.H. 2011, Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation, Archaeological Archives Forum.

Casella, E.C. and Croucher, S.K. 2010, *The Alderley Sandhills Project: An Archaeology of Community Life in (Post)-Industrial England,* Manchester University Press.

CCCHES 2018, Brief for an Archaeological Evaluation on land to the north of Helm Bar, Melmerby, Penrith, Cumbria, Cumbria County Council archaeological design brief.

CIFA 2014a, *Standard and Guidance for Archaeological Evaluations*, Chartered Institute of Field Archaeologists: Reading.

ClfA 2014b, Standards and Guidance for the collection, documentation, conservation and research of archaeological materials, Chartered Institute of Field Archaeologists: Reading.

Eden Valley Archaeology 2014, *Report on an Archaeological Desk Based Survey on the field north of Helm Bar, Melmerby, Cumbria,* Unpublished grey literature report.

Europae Archaeologia Consilium (EAC) 2014, A Standard and Guide to Best Practice for Archaeological Archiving in Europe, EAC Guidelines 1: Belgium.

NPA 2005, *Rapid Archaeological Desk-based Assessment, Land at Church Lane, Melmerby, Cumbria,* North Pennines Archaeology Ltd. unpublished report.

NPA 2006, *Report on an Archaeological Field Evaluation at Church Lane, Melmerby, Cumbria,* North Pennines Archaeology Ltd. unpublished report.

NPA 2007, *Report on an Archaeological Watching Brief Church Road, Melmerby, Cumbria,* North Pennines Archaeology Ltd. unpublished report.

NPPF 2018, National Planning Policy Framework, Ministry of Housing, Communities & Local Government

OAN 2003, Townhead Farm, Melmerby, Cumbria. Archaeological Building Investigation and Evaluation Report, Oxford Archaeology North unpublished report.

WAA 2012a, Land adjacent to Park View, Melmerby, Penrith, Wardell Armstrong Archaeology unpublished report.



WAA 2012b, Land at Melmerby Hall, Melmerby, Penrith, Wardell Armstrong Archaeology unpublished report.

Wardell Armstrong, 2017. Excavation Manual, unpublished internal document, Wardell Armstrong LLP

WA 2018a, Written Scheme of Investigation (WSI) for an archaeological evaluation on land north of Helm Bar, Melmerby, Penrith, Wardell Armstrong LLP unpublished document

WA 2018b, Land adjacent to Five Oaks, Melmerby, Penrith, Cumbria: Archaeological Evaluation Report, Wardell Armstrong unpublished report.

Watkinson, D.E. & Neal, V. 1998, *First Aid for Finds*, RESCUE: The British Archaeological Trust (London).

Websites

British Geological Survey 2018, Geology of Britain Viewer,

<u>http://mapapps.bgs.ac.uk/geologyofbritain/home.html</u>, British Geological Survey, accessed November 2018



APPENDIX 1: TRENCH DESCRIPTIONS

Trench 1

Length: 15m Width: 1.8m

Orientation: North-northwest-South-southeast Minimum Depth: 0.45m

Maximum Depth: 0.65m

Context Number	Context Type	Description	Height/Depth	Discussion
(100)	Topsoil	Dark brown silty topsoil with moderate compaction.	0.35m	
(101)	Natural	Firm mid grey brown gravelly natural with red sandstone pieces.	0.02m+	
(102)	Subsoil	Light orange brown silty gravel subsoil of moderate compaction.	0.16m	

Trench 2

Length: 15m Width: 1.8m Maximum Depth: 0.77m

Orientation: North-northwest-South-southeast Minimum Depth: 0.3m

Context Number	Context Type	Description	Height/Depth	Discussion
(200)	Topsoil	Dark brown silty topsoil with moderate compaction.	0.25m	Same as (100)
(201)	Natural	Firm mixed mid grey brown gravelly natural.	0.53m+	

Trench 3

Length: 15m Width: 1.8m

Maximum Depth: 0.4m

Orientation: Northwest-Southeast

Context Number	Context Type	Description	Height/Depth	Discussion
(300)	Topsoil	Dark brown silty topsoil with moderate compaction.	0.26m	Same as (100) and (200)
(301)	Natural	Firm mixed mid grey brown gravelly natural with red sandstone inclusions and blue grey boulders.	0.14m+	



Trench 4

Length: 15m

Maximum Depth: 1.22m

Width: 1.8m

Orientation: Northwest-Southeast Minimum Depth: 0.70m

Context Number	Context Type	Description	Height/Depth	Discussion
(400)	Topsoil	Dark brown silty topsoil with moderate compaction.	0.29m	Same as (100) (200) and (300)
(401)	Natural	Firm light orange brown gravelly natural.	0.1m+	
(402)	Subsoil	Mid orange brown silty clay of moderate compaction.	0.45m	

Trench 5

Length: 15m Width: 1.8m

Maximum Depth: 0.80m

Orientation: Northwest-Southeast Minimum Depth: 0.65m

Context Number	Context Type	Description	Height/Depth	Discussion
(500)	Topsoil	Dark brown silty topsoil with moderate compaction.	0.33m	Same as (100) (200) (300) and (400)
(501)	Natural	Light orange brown silty natural of moderate compaction with small stone inclusion.	0.1m+	
(502)	Subsoil	Light brown silty subsoil of moderate compaction.	0.23m	



APPENDIX 2: PLATES



Plate 1: Trench 1, facing north, 1m x 1m scales



Plate 2: Trench 2, facing north, 1m x 1m scale





Plate 3: Trench 2, facing east, section with 1m scale



Plate 4: Trench 3, facing north-east, 1m scale





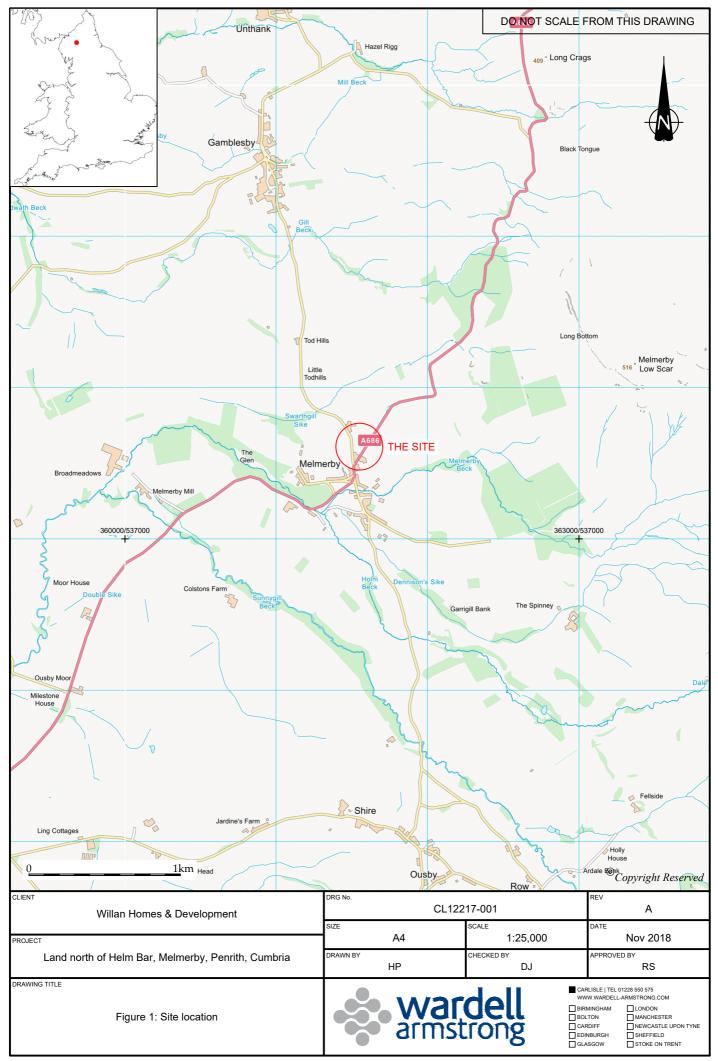
Plate 5: Trench 4, facing north-east, 1m scale



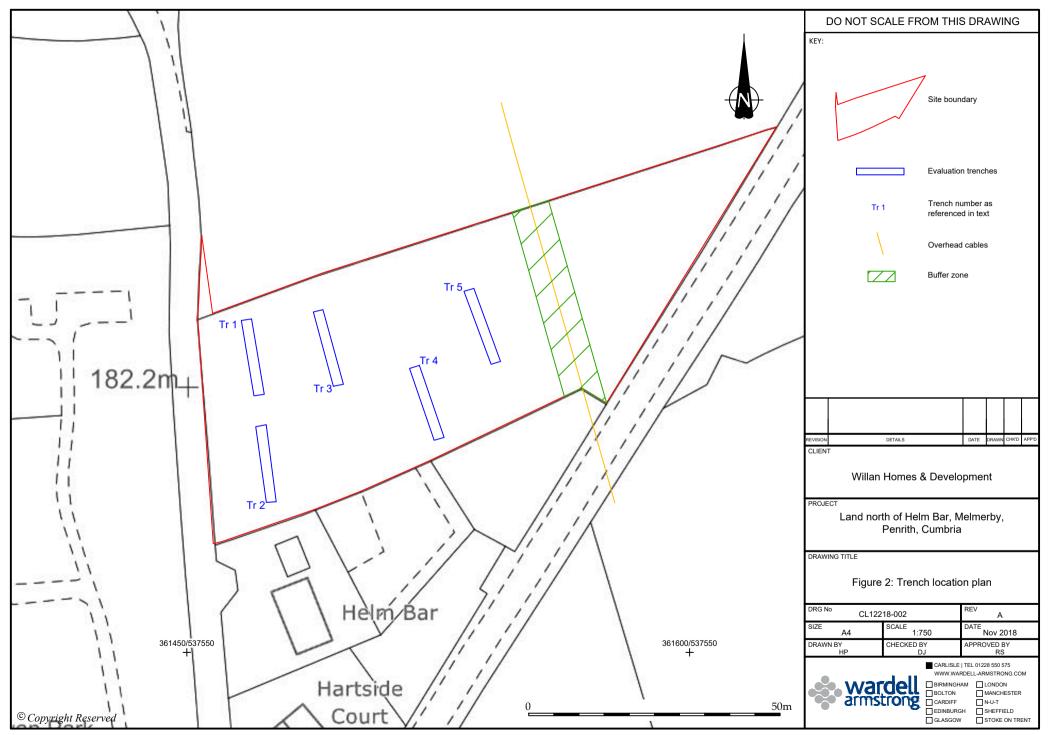
Plate 6: Trench 5, facing north, 1m x 1m scales



APPENDIX 3: FIGURES



N:\CP\CL12218 - EVAL AT MELMERBY CUMBRIA\03 - DESIGN\AUTOCAD\EVALUATION FIGURES\CL12218-001-A.DWG



wardell-armstrong.com

STOKE-ON-TRENT Sir Henry Doulton House Forge Lane Etruria Stoke-on-Trent ST1 5BD Tel: +44 (0)178 227 6700

BIRMINGHAM Two Devon Way Longbridge Technology Park Longbridge Birmingham B31 2TS Tel: +44 (0)121 580 0909

CARDIFF 22 Windsor Place Cardiff CF10 3BY Tel: +44 (0)292 072 9191

CARLISLE Marconi Road Burgh Road Industrial Estate Carlisle Cumbria CA2 7NA Tel: +44 (0)122 855 0575

EDINBURGH Great Michael House 14 Links Place Edinburgh EH6 7EZ Tel: +44 (0)131 555 3311 GLASGOW 2 West Regent Street Glasgow G2 1RW Tel: +44 (0)141 433 7210

LONDON 46 Chancery Lane London WC2A 11E Tel: +44 (0)207 242 3243

MANCHESTER (City Centre) 76 King Street Manchester M2 4NH Tel: +44 (0)161 817 5038

MANCHESTER (Greater) 41-50 Futura Park Aspinall Way Middlebrook Bolton BL6 6SU Tel: +44 (0)194 226 0101

NEWCASTLE UPON TYNE City Quadrant 11 Waterloo Square Newcastle Upon Tyne NE1 40P Tel: +44 (0)191 232 0943 SHEFFIELD Unit 5 Newton Business Centre Newton Chambers Road Thorncliffe Park Chapeltown Sheffield S35 2PH Tel: +44 (0)114 245 6244

TRURO Baldhu House Wheal Jane Earth Science Park Baldhu Truro TR3 6EH Tel: +44 (0)187 256 0738

International offices: ALMATY 29/6 Satpaev Avenue Regency Hotel Office Tower Almaty Kazakhstan 050040 Tel: +7(727) 334 1310

MOSCOW 21/5 Kuznetskiy Most St. Moscow Russia Tel: +7(495) 626 07 67

