CONTENTS

S	UMMARY	3
1	INTRODUCTION	4
1.1	Project origins	4
2	METHODOLOGY	4
2.1 2.2	Project design Archive	4 5
3	BACKGROUND	5
3.1	Location, topography and geology	5
4	HISTORICAL CONTEXT	7
4.1 4.2 4.3	Desk-based assessment Site walk-over Map regression	7 10 11
5	RESULTS	12
5.1 5.2 5.3 5.4	Methodology Results Discussion Finds and environmental analysis	12 13 21 23
6	ACKNOWLEDGMENTS	23
7	BIBLIOGRAPHY	23

FIGURES

Figure 1	Site location	5
Figure 2	Site location in detail	6
Figure 3	Tithe map depicting possible spatial anomaly	9
Figure 4	Possible holloway or sunken track; Belle Mount in the background	9
Figure 5	Aspect showing unidentified features	10
Figure 6	Google Earth image of the study area in 2013 with cropmarks	11
Figure 7	Location of trenches	14
Figure 8	Plan of Trench 1	15
Figure 9	Section across Wall 10	15
Figure 10	Wall and bank 10	15
Figure 11	Section through wall and bank 10	15
Figure 12	Cobbled road 11	15
Figure 13	Cobbled surface 12	15
Figure 14	Plan of Trench 2	16
Figure 15	Section through ditch 22	16
Figure 16	Cobbled surface 20	17
Figure 17	Ditch 22	17
Figure 18	Plan of Trench 3	17
Figure 19	Cobbled surface or road 30	18
Figure 20	Plan of Trench 4	18
Figure 21	Cobbled track 40	19
Figure 22	Cobbled track 50	19
Figure 23	Plan of Trench 5	19
Figure 24	Plan of Trench 6	20
Figure 25	Section in sterile Trench 6	20
Figure 26	Section in sterile Trench 7	20

Figure 27	Plan of Trench 7	21
Figure 28	Topographic features surveyed during the evaluation	22

SUMMARY

The major topographic feature that was encountered was a north-south aligned track **11/40/50** that sat within a narrow holloway.

A field wall **10** and bank **13** accompanied the track that probably represented the western boundary of Papcastle Common.

Cobbled surfaces **12**, **20** and **30** east of the holloway lacked finds and structural elements suggesting that these features served an agricultural rather than domestic or industrial purpose perhaps representing folds or pens for livestock.

Ditch **22** was a field boundary belonging to an unknown configuration.

There appeared to be little evidence for Roman occupation within this study area, but that Medieval and Post-Medieval agricultural practices had been articulated by a series of topographic features and cobbled spreads.

1. INTRODUCTION

1.1 Project Origins

Gerry Martin was commissioned by Mr Edmond Jackson, (the landowner) to prepare a Specification of Works for a Programme of Archaeological Evaluation within fields at Belle Mount, Papcastle.

The study area lies in close proximity to the Roman fort of *Derventio* and adjoining vicus.

The programme of archaeological evaluation was not subject to a formal planning application.

A brief was issued by Jeremy Parsons at Cumbria County Council Historic Environment Service on 8th July 2013 to undertake an archaeological evaluation.

Gerry Martin Associates Ltd sought approval to confirm a Working Scheme of Investigation (WSI) from the curatorial authority, Cumbria County Council Historic Environment Service in order to examine putative remains that may relate to past settlement.

Cumbria County Council Historic Environment Service subsequently approved the Working Scheme of Investigation which was undertaken between April 22nd and May 4th 2014.

This report describes the results of that archaeological reconnaissance and its archaeological context summarised in the following report.

All projects are carried out in accordance with PPS 5 (2010) and the guidelines and recommendations issued by the Institute of Field Archaeologists and English Heritage.

Gerry Martin has achieved the accreditation level of MIfA (Member) with the Institute of Archaeologists (IfA).

2. METHODOLOGY

2.1 Project Design

The purpose of the archaeological reconnaissance was to identify any past topographic, landscape or discreet archaeological features and thereby inform the client and any potential developer, the location of archaeological sensitive deposits and their significance.

Any archaeological reconnaissance at this stage was generally non-invasive maintaining the integrity of any putative monument but at the same time providing reliable and informed data regarding potential form, function and character.

The most effective method for achieving this aim was to insert seven shallow trenches, removing sealing topsoil overburden and then the cleaning of features undertaken in order to define function and form.

The following report has been assembled to the relevant standards and protocols of the Institute of Field Archaeologists (Standard and Guidance for Archaeological Reports, 2008), combined with accepted best practice.



Figure 1. Site location (OS Copyright, Licence no. 100044205)

2.2 Archive

The archive has been compiled in accordance with the project design and the guidelines set out by English Heritage (1991 and 2007) and the Institute of Field Archaeologists (1994).

Although forty kilometres south of Hadrian's Wall, the project seeks to promote and apply the Hadrian's Wall Research Strategy as outlined by English Heritage (Symonds & Mason 2009).

The archive will be deposited with an appropriate repository, Tullie House Museum, Carlisle and a copy of the report donated to the County Sites and Monuments Record, as a courtesy to the curatorial authority.

An electronic version of the archaeological report will also be deposited with the online archaeological resource *Oasis*.

A note will be forwarded to the Cumberland and Westmorland Archaeological Transactions for publication.

3. BACKGROUND

3.1 Location, topography and geology

The study area NY 11100 31640 is located within open fields that fall to the north and west where the Papcastle by-pass forms a convenient boundary.

Papcastle lies on the edge of the Skiddaw group of Ordovician Arenrig rock, a series of igneous lavas and basalt. Overlying the Basement Beds was a Carboniferous Dinantian Limestone that formed part

of the Alston Block. Overlying later beds were mainly mudstone with thin beds of sandstone and some discontinuous limestone bands (English Heritage 2006, 2).

Soil consists of a heavy, well-drained rich loam that overlies Boulder Clay and Glacial Till drift geology.

The study area is within the parish of Papcastle, close to the borough of Cockermouth.



Figure 2. Site location in detail

4. HISTORICAL CONTEXT

4.1 Desk-based assessment

Roman activity in Papcastle is overshadowed by the presence of the Roman fort of Derventio.

The fort was recorded by William Camden as early as 1586 who described it as "the carcase of an ancient fort whose Roman antiquity is attested by not a few monuments". This comment suggests that features such as walls and buildings were probably extant, albeit in a state of ruin (English Heritage 2006, 6).

The site was identified in 1709 by Gale, whilst in 1725 William Stukeley discovered Roman material downhill from the fort as far as the riverside (Railton, 2008, 4).

During the mid-19th century, it was suggested that a rampart and ditch enclosed the area from the fort to the north bank of the River Derwent, whilst the fort that stood on the summit of the hill, correctly identified by Stukeley was connected to the fort at Maryport via a westward Roman road (English Heritage 2006, 6).

The first formal excavation of the fort occurred in 1912 under the direction of R.G.Collingwood in order to establish the extent of the site. His conclusions were:

- Two Roman forts existed; one in the north-east corner built from ashlar blocks, the other less well-built but probably largely constructed in the late 2nd century AD
- That it was not an important military site due to the lack of internal remains
- Finds from outside the fort meant that Roman Papcastle was more than a mere fort
- Pottery assemblages indicated that it had been occupied throughout the Roman period

In 1965 Dorothy Charlesworth published her excavations during 1961 and 1962. She had discovered the remains of barrack blocks, the commandants quarters and a bath house but the internal lay-out of the fort remained poorly understood.

Adrian Olivier in 1984 investigated an area south of the fort that revealed considerable and complex activity within an area acknowledged to be part of the Roman vicus suggesting that civilian settlement was far greater than first thought. He observed:

- The first phase of activity was represented by industrial activity
- A large formal building possibly a bath-house, mansion, temple or administrative building ensued
- That this structure may have developed into a religious institution as an altar base was recovered along with an unexpectedly large volume of small finds that may indicate votive offerings

In 1998, Time Team investigated the southern end of Papcastle. Extensive geophysical surveying indicated that the vicus extended southwards (Gaffney 1998, 1-3); a hypothesis tested by trial trenching at Derwent Lodge and Sibby Brows (Hughes & Zant 2010, 285-286).

At Derwent Lodge, two trial trenches suggested the following structural phases.

- 1. Mid to late 2nd century floor
- 2. Early 3rd century timber structure
- 3. Clay and cobble foundation to a monumental building
- 4. Timber strip building of 4th century date
- 5. Second timber building also of 4th century date

At Sibby Row, two trial trenches suggested the following structural phases

- 1. A small ditch or gully sealed by soil
- 2. Metalled surface with accompanying beam slot
- 3. Clay and cobble foundation for two-coursed sandstone masonry

Following the 2009 floods, a geophysical survey was undertaken that strongly suggested an extensive range of buildings, enclosures and field systems recorded on both sides of the River Derwent and interpreted as an extra-mural Roman settlement (Graham 2012, 275). This survey did not extend to the area currently under study

Relevant to this study was the geophysical survey undertaken by North Pennines Archaeology Ltd at land opposite Belle Mount in 2008. The geomagnetic survey covered approximately 1.45 hectares but failed to locate any significant sub-surface cultural deposits, the only remains being probable ridge and furrow cultivation and later grubbed hedgerows (Railton, 2008, 9).

Surprisingly, two proposed Roman roads appeared to be absent, one of which, the route to Carlisle (Margary 75), is clearly depicted traversing this area (Sowerby, 2008, Figure 2) the other possibly outside the realm of the geophysical survey.

This anomaly is not actively discussed in the survey although later agricultural truncation is cited as a possible reason for the roads absence.

At the same time, an extensive desk-based assessment was undertaken for a development at Craiginvar, a dwelling next to Belle Mount, ahead of a watching brief.

The watching brief proved to be archaeologically sterile and was in an area that had probably been compromised by 20th century development (Ibid, 2008).

The desk-based assessment however, shows that the organisation of space in this study area was rather anomalous.

The 1838 Tithe Map (figure 3) depicts a series of rectangular fields, almost certainly the result of agglomeration of Medieval strip fields. However, there is a wide "funnel-like" strip of land that includes the road from Papcastle to Belle Vue and then splays northwards as an arcing boundary before encompassing Papcastle Common. This does not appear on later Ordnance Survey maps.

At first sight, there is no obvious reason for this variation but during the walk-over of the site conducted on April 12th 2014 a possible holloway and track may have been identified (figure 4). It appears feasible that the arcing boundary on the Tithe Map is the western bank of a putative road or track.



Figure 3. Tithe map depicting possible spatial anomaly

There is no direct evidence that this topographic feature may have a Roman origin and it could even be a natural runnel, but it may explain the absence of a road that would link the fort at Papcastle with Carlisle, predicted in the field opposite Belle Mount.



Figure 4. Possible holloway or sunken track with Belle Mount in the background

Speculation though it may be, possibly the route out of the fort's eastern gate forked, the left prong veering northwards to become the main route to Carlisle. A parallel would be the walled town of Roman Winchester, where the main entrance on North Walls almost immediately split into two routes; one to Stockbridge the other to Andover.

However, a Roman road found in 2013 (J.Parsons and E.Jackson *pers comm*) south of the fort but aligned eastwards leading to the *vicus* possesses a stronger case for the main arterial route linking Papcastle with Carlisle.

Finally, in conversation with Mr Jackson, an archaeological evaluation was undertaken in some waste ground next to the A595 (figure 6). This exercise proved to be archaeologically negative. The work was undertaken by Mark Graham and Jan Walker and a report is held by the Cumbria County Council HER (J.Parsons *pers comm*).

4.2 Site walkover

On 12th April 2014, a site visit in the company of Mr Edmond Jackson the landowner was initiated in order to understand the disposition of the site and its surrounding landscape.

The fort is clearly articulated as a platform or plateau with a universal view of the surrounding locality. Linear depressions and banks outline the slighted fortifications that once belonged to the fort.



Figure 5. Aspect showing unidentified features

The study area consisted of a moderately steep slope leading up to the road. The ground was pasture and had not been ploughed in living memory (E.Jackson *pers comm*).

A possible holloway or sunken track with adjacent banks appeared to head directly towards Belle Mount (figure 4). Other smaller outcrops could also represent earthworks (figure 5). The area has in the past been subject to strip field agricultural practice, but the close proximity to the fort may also indicate extra-mural Roman activity.

Complicating the study area, was the presence of a high-pressure sewer main that pumps sewerage to an outfall just to the left of Belle Mount marked by a yellow shrub or tree (figure 5). An exclusion zone of 4m either side of the pipe had to be respected when fieldwork took place. This could represent a serious impediment for understanding the relationship of any features with the current road frontage.



Figure 6. Google Earth image of the study area in 2013 with cropmarks highlighted

4.3 Map regression

Although featured on Saxtons 1576 map, the earliest detailed map of Papcastle was the Hicks Estate map of 1763. Sadly, the study area does not feature on this document strongly suggesting that the study area was used as agricultural land and therefore, unworthy of a detailed survey.

Donald's map of Cumberland in 1774 was based on one inch to one mile. The map illustrates Papcastle but the disposition of houses is probably random and underestimates the number of dwellings.

John Wood's map of 1832 is a slightly more schematic version of the Tithe Map initiated in 1838 (figure 3) and lists owners of properties. Occupation of the study area in both versions appears to be non-existent and that the land was vacant.

The Ordnance Survey maps of 1863 (published in 1874), 1899 and 1925 (Sowerby, 2008) all depict the study area as open ground without development, although by 1925 sewage tanks belonging to Cockermouth Rural District Council had been installed to the northwest. The footprint for these structures is still clearly visible (figure 6).

Google Earth supplies an interesting image of the study area. The picture (figure 6) appears to identify the following topographic features:

- An almost right-angled cropmark with rounded corner that would suggest a road or large ditch
- A thin diagonal line that represents the modern sewer pipe pumping effluent to the sewer main in Dovers Lane
- An earthen bank veering northwest
- A slight linear anomaly that connects the arcing cropmark with the earthen bank
- The former sewage works

5 RESULTS

5.1 Methodology

The objective of the archaeological evaluation was to carry out a formal programme of archaeological observations and investigations. The specific aims of the fieldwork were to:

- Provide a record of those works associated with the removal of the overburden
- Provide a record of any significant archaeological or architectural features encountered by intrusive activities
- Ascertain the archaeological issues involved with any future development of the site
- Provide reliable data in order for Cumbria County Council Historic Environment Service to judge the heritage impact of the planning application

The ground-works were undertaken by a mini excavating machine under archaeological supervision. This action consisted of observation of the topsoil removal and monitoring the displaced soil and overburden leaving a trench that had been reduced to natural drift geology or an archaeological horizon.

Revealed sections were checked and where appropriate, drawn for any past cultural activity and recorded according to the protocols of the GMA manual.

The trench was cleaned and all features investigated for their cultural origins. Scaled plans were drawn, photographs taken and the deposits documented according to the protocols of the GMA manual

The disposition of five trenches was agreed with the curatorial authority of which a further two trenches were added in order to investigate specific anomalies that arose following the initial phase of evaluation.

5.2 Results

The evaluation was undertaken in late April and early May 2014 following a period of inclement and wet weather.

Initially five trenches were agreed with the curatorial authority representing a 5% sample size. Two small trenches were added following a site visit that sought to answer specific issues arising from the initial evaluation exercise.

All the seven trenches rested above undisturbed ground comprising gravel till, pink Boulder Clay and sandy outwash and were located in the following configuration (figure 7).

Nineteenth century agricultural land drains were prevalent in Trenches 1-5 but have been discounted as part of the archaeological record.

Context	Туре	Same as	Part of	Interpretation	Photo	Length	Width	Depth
10	Layer	-		Wall	32-39, 146- 147, 166-169	2.50m+	1.00m	0.43m
11	Layer	40, 50		Track	40-42	2.50m+	3.50m	0.05m
12	Layer	30?		Cobbled surface	43-47	11.25m	2.50m+	0.05m
13	Layer			Bank	-	2.50m+	2.06m	0.35m
20	Layer			Cobbled surface	69-74	4.50m	2.30m+	0.05m
21	Fill	-	22	Stone setting	75-78	1.50m	0.40m+	u/x
22	Cut	-		Ditch	79-81, 133-137	5.00m+	1.50m	0.40m
23	Fill	-	22	Ditch	-	5.00m+	1.50m	0.40m
30	Layer	12?	-	Holloway	126-132	4.00m	2.25m	0.10m
40	Layer	40, 50		Track	95-103	2.50m+	2.80m	0.10m
50	Layer	40, 50		Track	112-117	2.50m+	3.00m	0.10m

Context table showing contexts issued during the evaluation

Eleven principal contexts were identified during the evaluation exercise, listed in the table above.

Metrical and archival data are also listed in the context table.



Figure 7. Location of trenches

Trench 1 (figure 7) measured 20.00m x 2.00m, located at the southern end of the study area at NY 11106 31640, reduced to a depth of 0.60m.

The following key observations were undertaken within Trench 1 (figure 8)

- 1. Overburden. This consisted of brown silty clay that contained a high proportion of rounded, small pebbles to a depth of 0.60m.
- Bank. At the western end of the trench there existed a north-south alignment of large, rounded boulders (up to 0.44m in size) that had been deliberately placed above each other without a bonding matrix to form a probable field wall **10** (figure 10). These stones rested on a bed of yellow brown silty clay **13** that formed an earthen bank 0.35m in height and spread over cobbled surface **11** (figures 9 and 11).
- 3. Road. Respecting bank **10** was a cobbled surface **11** within a yellow brown silty clay matrix, aligned north-south that measured 3.50m in width (figure 12). The track was well-articulated beside wall **10** but dissipated to the east merging with cobbled surface **12**.
- 4. Cobbled surface. A surface of small rounded pebbles set directly onto the underlying yellow brown gravelly clay that formed a surface of uncertain form 12 (figure 13). Its alignment remains unknown but probably continued into Trench 3, whilst a similar spread did not continue west of wall 10.



Figure 8. Plan of Trench 1



Figure 9. Section across Wall 10



Figure 10. Wall and bank 10



Figure 11. Section through wall and bank 10



Figure 12. Cobbled road **11**

Figure 13. Cobbled surface 12

<u>Trench 2</u>

Trench 2 (figure 7) measured 20.00m x 2.00m at NY 11123 31675 and was located parallel to the eastern bend in Dovers Lane, reduced to a depth of 0.40m.

The following key observations were undertaken within Trench 2 (figure 14):

- 1. Cobbled surface. A concordant cobbled surface **20** formed from a single course of pebbles (figure 16). No structural elements were observed within the cobbled surface.
- 2. Stone setting. A possible rectangular plan stone setting **21** aligned approximately northsouth. Upon excavation, it appears probable that this feature represented a relatively recent feature cutting the backfill of ditch **23** and in turn cut by a 19th century land drain.
- 3. Ditch. A shallow east-west aligned ditch **22** (figure 17) approximately 0.40m in depth filled by light brown slightly silty clay with occasional rounded pebbles **23** (figure 15).
- 4. Overburden. This consisted of brown silty clay that contained a large proportion of rounded, small pebbles to a depth of 0.32m.



Figure 14. Plan of Trench 2



Figure 15. Section through ditch 22



Figure 16. Cobbled surface 20

Figure 17. Ditch 22

Trench 3 (figure 7) measured 10.00m x 2.00m at NY 11103 31660 and was located just to the east of a pronounced holloway, reduced to a depth of 0.20m.

The following key observations were undertaken within Trench 3 (figure 18):

- 1. Cobbled surface. A concordant cobbled surface **30** formed from a single course of pebbles (figure 19). No structural elements were observed within the cobbled surface but the feature appeared to concord with the eastern limb of a cropmark observed on an image supplied by Google Earth.
- 2. Overburden. This consisted of brown silty clay that contained a high proportion of rounded, small pebbles to a depth of 0.20m.



Figure 18. Plan of Trench 3



Figure 19. Cobbled surface or road 30

Trench 4 (figure 7) measured 15.00m x 2.00m at NY 11100 31704 and was located to the north across a pronounced holloway, reduced to a depth of 0.40m.

The following key observations were undertaken within Trench 4 (figure 20):

- 1. Cobbled road. A roughly concordant cobbled surface **40** formed from a single course of pebbles (figure 21). This featured sat in a slight holloway approximately 2.80m in width and was part of the same track articulated by contexts **11** and **50**.
- 2. Overburden. This consisted of light brown silty clay that contained a small amount of rounded, small pebbles to a depth of 0.40m, reducing to 0.20m in depth above track **40**.

Figure 20. Plan of Trench 4

Figure 21. Cobbled track 40

Figure 22. Cobbled track 50

Trench 5 (figure 7) measured 10.00m x 2.00m at NY 11101 31676 and was located in the centre of the site across a pronounced holloway, reduced to a depth of 0.30m.

Figure 23. Plan of Trench 5

The following key observations were undertaken within Trench 5 (figure 23):

- 1. Cobbled road. A roughly concordant cobbled surface **50** formed from a single course of pebbles (figure 22). This featured sat in a slight holloway approximately 3.00m in width and was part of the same track articulated by contexts **11** and **40**.
- 2. Overburden. This consisted of yellow brown silty clay that contained a moderate amount of rounded, small pebbles to a depth of 0.30m, reducing to 0.20m in depth above track **50**.

<u>Trench 6</u>

Trench 6 (figure 7) measured 10.00m x 1.10m at NY 11105 31647 and was located across a slightly raised piece of ground, reduced to a depth of 0.80m.

The following key observations were undertaken within Trench 6 (figure 24):

 Overburden. This measured 0.70m in depth comprising 0.20m in thickness of dark brown clean silt, overlying 0.25m in thickness of cream mortar and stone debris with occasional brick, sealing brown clay silt 0.20m in thickness representing a buried agricultural horizon. A further 0.10m of orange-brown silty clay was removed (figure 25). This action was initiated no earlier than the 19th century.

Figure 24. Trench 6

Figure 25. Section in sterile Trench 6

Figure 26. Section in sterile Trench 7

<u>Trench 7</u>

Trench 7 (figure 7) measured 5.00m x 1.10m at NY 11106 31638 and was located on a raised piece of ground, reduced to a depth of 0.85m.

The following key observations were undertaken within Trench 7 (figure 27):

- Mound. This feature measured 0.75m in height comprising cream mortar and stone debris, brick and other building waste, sealing light brown clay with occasional pebbles. A further 0.10m of light brown clay representing drift geology was removed (figure 26). This deposition action was initiated no earlier than the 19th century
- 2. Archaeologically sterile. No cobbles were present.

Figure 27. Plan of Trench 7

5.3 Discussion

A cobbled track consisting of surfaces **11**, **40** and **50** nestling within a shallow hollow could be traced for 57 metres in a generally northwards direction (figure 28). This track confirmed the cropmark illustrated on a Google Earth image (figure 6).

The track was on average 3.00m in width and possessed no camber or respecting drainage ditches or gullies. Indeed, the holloway would have quickly become inundated with water following rainfall.

Although no secure dateable evidence was recovered, it appears unlikely that this topographic feature represented a Roman road but may have been consistent with a Medieval or Post-Medieval track that lead to Papcastle Common as represented on the 1838 tithe map (figure 3).

The disposition of the field system as illustrated on the tithe map appears to fan outward towards the common perhaps consistent with droving livestock from the centre of the village to the Common.

The longevity of the cobbled track is uncertain. Possible ruts were evident and the track exhibited signs of wear. As the track was not evident on the tithe map, it would appear highly probable that it had been replaced by Dovers Lane by at least the early 19th Century.

Figure 28. Topographic features surveyed during the evaluation

To the east of the road were a series of cobbled spreads **12**, **20** and **30** that did not exhibit obvious structural elements but respected the dip of the eastern slope with surfaces **12** and **30** probably representing the same cobbled horizon forming a surface at least 25m in length.

A high concentration of small pebbles within the topsoil in Trenches 1-3 suggested that these cobbled surfaces were extensive along the eastern fringe of the study area.

The lack of structural elements, the total lack of cultural material and the dip of the slope may be consistent with a series of pens or folds to temporarily house livestock rather than domestic or industrial occupation.

A wall **10** and underlying bank **13** represented a major topographic feature that appears to respect the western extent of Papcastle Common (figure 3). This feature was observed on a Google Earth image (figure 6).

Bank **13** appears to post-date track **11** as it spills onto the roadway (figure 9) although this may represent later denudation of the bank. The presence of field wall **10** and its association with track **11** appears to be consistent with Medieval agricultural practice and spatial organisation.

An undated but almost certainly post-Roman, shallow east-west aligned ditch **22** formed a field boundary that was not traced further.

The presence of a terrace and mound in the south-east corner of the study area proved to be modern or 19th Century dumps of building waste (Trenches 6 and 7) possibly associated with the construction of houses at Belle Mount.

5.4 Finds and environmental analysis

Two sherds of Roman pottery were recovered from Trench 1 that included a probable body sherd from an amphora and a rim sherd of Greyware. Almost certainly these sherds are from residual deposition from an unstratified source.

An environmental sample was taken from the earth beneath wall **10** that formed a probable Medieval or Post-Medieval field boundary. On reflection, it was not felt to be worthy of further analysis.

An environmental sample was taken from fill **23** within ditch **22** that formed a probable Medieval or Post-Medieval field boundary. On reflection, it was not felt to be worthy of further analysis.

6. ACKNOWLEDGMENTS

I am grateful to Mr Edmond Jackson for commissioning the project for his assistance with the plans and development details. I would also like to thank the staff of Carlisle Library with my research into the local history of the area and the staff of Cumbria Record Office, Carlisle with the map regression and other documentary research.

I am also grateful to my colleague Eleonora Montanari for executing the fieldwork efficiently despite poor weather.

7. BIBLIOGRAPHY

Andrews, G.	Management of Archaeological Projects, English Heritage 2nd edition 1991, London
Bagshaw, R.	Roman Roads, Princes Risborough, 1979
Brown, D.H.	Archaeological Archives a Guide to Best Practice in Creation, Compilation, Transfer and Curation, London 2007
Brennard, M.	The Archaeology of North West England: Volume 1, Loughborough 2006
Brennard, M.	Research and Archaeology in North West England: Volume 2, Manchester 2008
Cracknell, P.M.	Fieldwork in Cumbria 2010. Cumberland & Westmorland Arch Trans 2011
English Heritage	Extensive Urban Survey – Cockermouth and Papcastle, 2006

Clack. P.	& Gosling.	D.F.	Archaeology in	the North	. Newcastle 1976
ciacity i .		D	/ include on one of the		, 1000000000000000000000000000000000000

Gaffney, G.	Geophysical survey: Papcastle Report No. 1998/28, 1998
Giecco, F. & Crompton, P.	Fieldwork in Cumbria 2005. Cumberland & Westmorland Arch Trans 2006
Giecco, F. & Cracknell, P.M.	Fieldwork in Cumbria 2004. Cumberland & Westmorland Arch Trans 2005
Graham, M.	Geophysical survey at Papcastle and Cockermouth, March 2011
Graham, M.	Fieldwork in Cumbria 2011. Cumberland & Westmorland Arch Trans 2012
Gray, H.C.	English Field Systems, London 1959
Hindle, B.P.	Roads, Tracks and Their Interpretation, London, 1993
Hughes, V. & Zant, J.	Fieldwork in Cumbria 2009. Cumberland & Westmorland Arch Trans 2010
Hutchinson, W.	The History of the County of Cumberland Vol II, Carlisle 1974
IFA	Institute of Field Archaeologists' Standards & Guidance documents (Desk- Based Assessments, Watching Briefs, Evaluations, Investigation and Recording of Standing Buildings, Finds) Reading, 2001 and 2008.
Kain, R.J.P. & Prince, H.	Tithe Surveys for Historians, Chichester 2000
Jackson, E.	<i>On a Stone Celt found near Cockermouth.</i> Cumberland & Westmorland Arch. 1906
Macintosh, J.	Fieldwork in Cumbria 2004. Cumberland & Westmorland Arch Trans 2005
Mannix & Whellan	History, Gazateer and Directory of Cumberland 1847
Martin, G.M.T.	Archaeological Desk-based Assessment at West Winds, Papcastle GMA Report 111, 2013
Oxford Archaeology	Watching brief at Camp Farm, Papcastle, Lancaster, 2012
Potten, S.	Fieldwork in Cumbria 2009. Cumberland & Westmorland Arch Trans 2010
Railton, M.	Geophysical Survey of Land at Papcastle, Nenthead, 2008

Sowerby, M. Archaeological Desk-based Assessment and Watching Brief at Craiginvar, Papcastle, Nenthead, 2008

Sowerby, M. Fieldwork in Cumbria 2008. Cumberland & Westmorland Arch Trans 2009