

# LAND AT JACK HILL, ALLITHWAITE, GRANGE-OVER-SANDS, CUMBRIA

## Archaeological Evaluation and Excavation



Client: Applethwaite Ltd

NGR:  
338864 476163 (centre)

Planning application ref.  
SL/14/0800

© Greenlane Archaeology Ltd

July 2015



Greenlane Archaeology Ltd,  
Lower Brook Street,  
Ulverston, Cumbria, LA12 7EE

Tel: 01229 588 500  
Email: [info@greenlancearchaeology.co.uk](mailto:info@greenlancearchaeology.co.uk)  
Web: [www.greenlancearchaeology.co.uk](http://www.greenlancearchaeology.co.uk)

## Contents

Non-Technical Summary .....	3
Acknowledgements.....	3
1. Introduction .....	4
2. Methodology .....	6
3. Historical and Archaeological Background .....	9
4. Fieldwork Results.....	12
5. Conclusion .....	33
6. Bibliography .....	35
Appendix 1: Project Design .....	37
Appendix 2: Summary Context List .....	43
Appendix 3: Summary Finds List.....	45
Appendix 4: Summary Report on Early Bronze Age Pottery.....	49

## Illustrations

### List of figures

Figure 1: Site location .....	5
Figure 2: Plans of the north-east end of Trench 1 - pre-excavation and partially excavated.....	14
Figure 3: Plan of the north-east end of Trench 1 - fully excavated and sections 1 and 2 .....	15
Figure 4: Trench location plan showing levels and areas of excavation .....	21
Figure 5: Plan of the excavation area, including the extended area of excavation .....	22
Figure 6: Detailed plan of cremation burials in extension to Trench 1 .....	23
Figure 7: Plan of Cremation 8, partially excavated, and sections 3 to 9 .....	24

### List of plates

Plate 1 (left): Extract from the enclosure map of 1807 .....	10
Plate 2 (right): Extract from the Ordnance Survey map, 1851 .....	10
Plate 3 (left): Extract from the Ordnance Survey map, 1890.....	10
Plate 4 (right): Extract from the Ordnance Survey map, 1894 .....	10
Plate 5 (left): Extract from the Ordnance Survey map, 1913.....	11
Plate 6 (right): Extract from the Ordnance Survey map, 1933 .....	11
Plate 7 (left): Trench 1 following initial cleaning, with feature 105 visible centre left, viewed from the south-west ...	13
Plate 8 (right): Trench 1 following initial cleaning, viewed from the south-west .....	13
Plate 9 (left): Cremation 1 during excavation .....	13
Plate 10 (right): Cremation 2 before excavation .....	13
Plate 11 (left): Cremation 2, half section .....	16
Plate 12 (right): Cremation 3 following removal of material in 101.....	16
Plate 13 (left): Cremation 3, half-section .....	16

Plate 14: The additional features as first revealed ..... 17

Plate 15 (left): Cremation 4 before excavation ..... 17

Plate 16 (right): Cremation 4, half-section ..... 17

Plate 17 (left): Cremation 5 before excavation ..... 18

Plate 18 (right): Cremation 5, half-section ..... 18

Plate 19 (left): Cremation 6 before excavation ..... 18

Plate 20 (right): Cremation 6, half-section ..... 18

Plate 21 (right): Cremations 4-6 during excavation ..... 18

Plate 22 (left): Cremation 7 before excavation ..... 19

Plate 23 (right): Cremation 7, half-section ..... 19

Plate 24 (left): Cremation 8 before excavation ..... 19

Plate 25 (right): Cremation 8, partially excavated showing accessory vessel..... 19

Plate 26 (left): Cremation 9 before excavation ..... 20

Plate 27 (right): Cremation 9, half-section ..... 20

Plate 28 (left): Cremation 10 partially excavated..... 20

Plate 29 (right): Cremation 11 fully excavated..... 20

Plate 30 (left): Trench 2 following initial cleaning, viewed from the north ..... 25

Plate 31 (right): Trench 2 following initial cleaning, viewed from the south..... 25

Plate 32 (left): Trench 3 following initial cleaning, viewed from the north-west..... 26

Plate 33 (right): Trench 3 following initial cleaning, viewed from the south-east..... 26

Plate 34 (left): Trench 4 following initial cleaning, viewed from the east..... 26

Plate 35 (right): Trench 4 following initial cleaning, viewed from the west ..... 26

Plate 36 (left): Trench 5 following initial cleaning, viewed from the east ..... 27

Plate 37 (right): Trench 5 following initial cleaning, viewed from the west ..... 27

Plate 38 (left): Trench 6 following initial cleaning, viewed from the south-west ..... 28

Plate 39 (right): Trench 6 following initial cleaning, viewed from the north-east ..... 28

Plate 40 (left): Trench 7 following initial cleaning, viewed from the south-east..... 28

Plate 41 (right): Trench 7 following initial cleaning, viewed from the north-west..... 28

Plate 42 (left): Trench 8 following initial cleaning, viewed from the north-west..... 29

Plate 43 (right): Trench 8 following initial cleaning, viewed from the south-east..... 29

Plate 44 (left): Trench 9 following initial cleaning, viewed from the south-west ..... 30

Plate 45 (right): Trench 9 following initial cleaning, viewed from the north-east ..... 30

Plate 46 (left): Trench 10 following initial cleaning, viewed from the north ..... 30

Plate 47 (right): Trench 10 following initial cleaning, viewed from the south..... 30

Plate 48 (left): Probable medieval ceramic material (exterior shown, when known)..... 31

Plate 49 (right): Probable medieval ceramic material (interior/reverse side) ..... 31

Plate 50: Clay tobacco pipe stem/bowl junction with spur from context 1000..... 32

## Non-Technical Summary

As part of the submission of a planning application for the construction of a residential development Greenlane Archaeology was commissioned to carry out a desk-based assessment of land at Jack Hill, Allithwaite, in November 2014. The desk-based assessment revealed that the site lies c560m to the south of a Bronze Age cremation cemetery, which was excavated in 2001, and a further single Bronze Age cremation was also found in Yew Tree Field some 230m to the west of the site in 1834. Other finds from the area include lithic finds from the Palaeolithic, Mesolithic, and Neolithic periods. The site has been open fields since at least the early 19<sup>th</sup> century, and, although no archaeological finds or features were known from within the proposed development area, the potential for remains to be present at the site, especially of prehistoric date, was recognised. A further programme of archaeological evaluation was requested in order to reveal whether any remains of archaeological interest were indeed present on the site. The evaluation was undertaken by Greenlane Archaeology between the 24<sup>th</sup> April and 1<sup>st</sup> May 2015. Of the 10 trenches excavated, nine had no features of archaeological interest, although finds, including a small amount of medieval pottery, were retrieved from the topsoil.

However, in Trench 1 a group of three features were revealed, two of which contained truncated Bronze Age collared urns containing cremations, and the third charcoal and burnt bone. Because of the obvious significance of it was agreed, following discussion with the Cumbria County Council Historic Environment Service, to excavate a larger area 10m by 10m around these features. This revealed a further eight similar features extending towards the south-west edge of the enlarged area, which was therefore extended a further 5m on this side to confirm whether there were any more features, although none were discovered. Of the eight additional features, six also contained Bronze Age vessels while the others also clearly related to cremation as they contained considerable amounts of charcoal and burnt bone. One pit filled with this type of material also contained a complete accessory vessel.

The discovery of such remains at Allithwaite, less than 1km from a similar sized cremation cemetery of Bronze Age date excavated in identical circumstances in 2001 represents a significant discovery in the region. Such finds can inform a number of archaeological research aims and it is recommended that, following stabilisation and the processing and all the material from the urns and the associated pits, the results of the excavation be published in a suitable journal.

## Acknowledgements

Greenlane Archaeology would like to thank Applethwaite Ltd for commissioning the project, in particular Colin Hetherington. Additional thanks are due to Jeremy Parsons, Historic Environment Officer at Cumbria County Council, for approving the project design. Thanks are also due to Luscombe Plant Hire for providing the plant, Mark Brennand (Senior Historic Environment Officer at Cumbria County Council) for his advice during the site visit, and the office of the Cumbria County Council Coroner for their assistance. Special thanks are also due to Gillams of Ulverston for providing packing material, and to the landowners Mr and Mrs Jackson for their patience during the fieldwork.

The evaluation was carried out by Dan Elsworth and Tom Mace. This report was co-written by Dan Elsworth and Tom Mace, the latter of whom also produced the illustrations. All of the finds and samples were processed and assessed by staff at Greenlane Archaeology, with the exception of the Early Bronze Age pottery, which was assessed by Blaise Vyner. Initial advice on the conservation of the Early Bronze Age pottery was provided by Ian Panter at the York Archaeological Trust, on the processing of the bone, by Malin Holst of York Osteoarchaeology, and on the bulk samples by Tim Holden at Headland Archaeology. Jo Dawson edited the report and the project was managed by Dan Elsworth.

# 1. Introduction

## 1.1 Circumstances of the Project

1.1.1 As part of the submission of a planning application (ref. SL/14/0800) by Applethwaite Ltd (hereafter 'the client') for the construction of a residential development on land at Jack Hill, Allithwaite, Grange-over-Sands, Cumbria (NGR 338864 476163 (centre)), Greenlane Archaeology was commissioned to carry out an archaeological desk-based assessment of the site, following advice from the Cumbria County Council Historic Environment Service (CCCHES). The desk-based assessment was carried out in November 2014 and revealed that the area is surrounded by sites of archaeological interest; in particular examples of prehistoric burial and other finds of the same date (Greenlane Archaeology 2014).

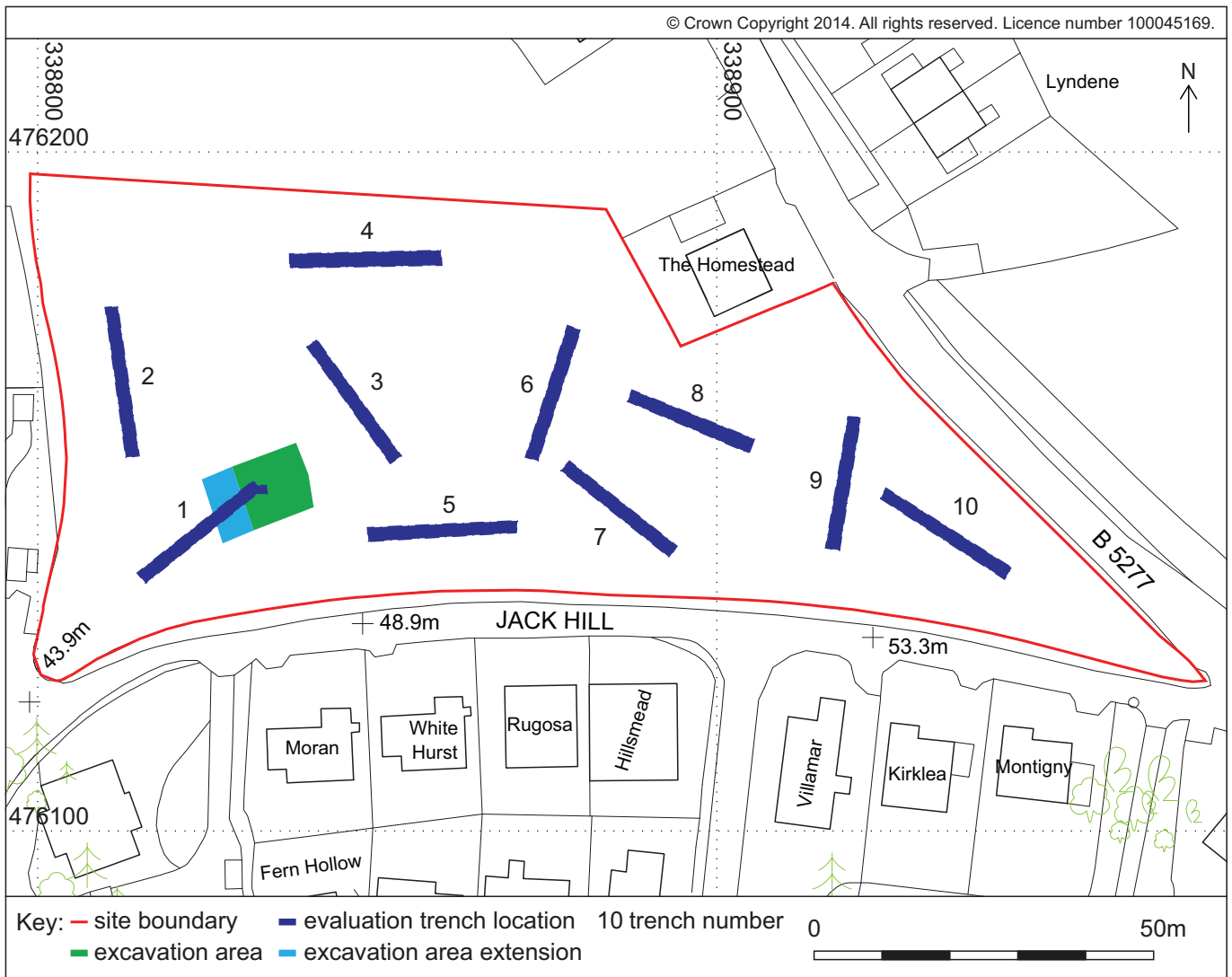
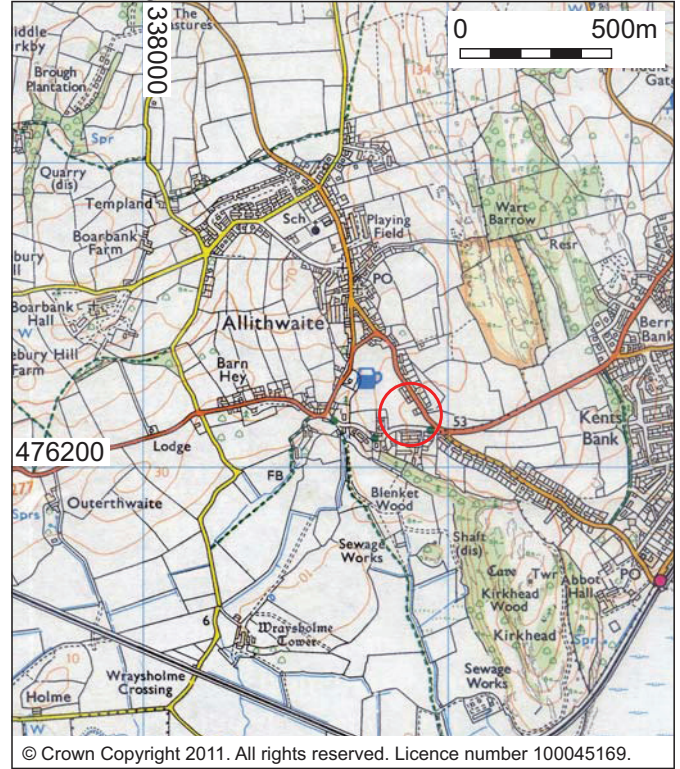
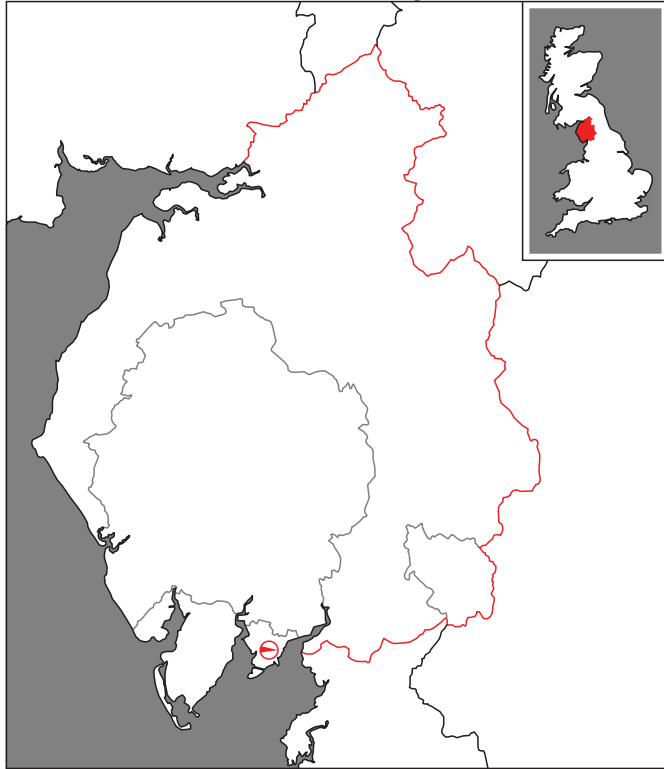
1.1.2 As a result of the desk-based assessment, a further programme of archaeological evaluation was requested by the CCCHES in order to reveal whether any remains of archaeological interest are present on the site. The evaluation was undertaken by Greenlane Archaeology between the 27<sup>th</sup> April and 1<sup>st</sup> May 2015. During the evaluation a group of three features all apparently part of a small Early Bronze Age cremation cemetery were discovered. Following discussion with the CCCHES, and after declaring the probable presence of human remains to the Cumbria County Coroner's office, this resulted in a further phase of work almost immediately, comprising the excavation of a larger area around them in order to identify whether there were any further features. This took place on the 18<sup>th</sup> to the 20<sup>th</sup> May and revealed a further eight related features.

## 1.2 Location, Geology, and Topography

1.2.1 The site occupies an area of 19.1 acres in the centre of the village of Allithwaite (Figure 1). The village of Allithwaite is located 2.5km to the south-west of Grange-over-Sands, Cumbria, on a peninsula of land between the Levens and Kent estuaries on the northern coast of Morecambe Bay (Ordnance Survey 2011; see Figure 1).

1.2.2 The village is located close to the top of a limestone fell that begins at the coast around 1km to the south, the surrounding fields are largely pasture and in places the underlying limestone bedrock emerges into pavement formations (*ibid*). The site is approximately 50m above sea level.

1.2.3 The solid geology is Lower Carboniferous Limestone (Moseley 1978, figure 1) which is overlain in places by limestone scree, and boulder clay in the valley bottoms (Countryside Commission 1998, 72).



Client: Appleshwaite Ltd

Figure 1: Site location

## 2. Methodology

### 2.1 Introduction

2.1.1 All aspects of the evaluation and excavation were carried out according to the standards and guidance of the Chartered Institute for Archaeologists for evaluation (CIfA 2014) and according to Greenlane Archaeology's own excavation manual (Greenlane Archaeology 2007), based on the initial project design devised for the project (see *Appendix 1*), although this was modified to suite the circumstances, mainly through 100% excavation of all features encountered after an initial half section, rather than just a 50% sample.

### 2.2 Desk-Based Assessment

2.2.1 The earlier desk-based assessment (Greenlane Archaeology 2014) was consulted in order to provide information about the development of the site, relevant sections of which are referred to in this report, most prominently in *Section 3*.

### 2.3 Archaeological Evaluation and Excavation

2.3.1 Ten evaluation trenches, each c.1.6m-1.7m wide and c.22m long, were located randomly across the area (Figure 1). A plan of the proposed trench locations was submitted to and approved by Jeremy Parsons, Historic Environment Officer at Cumbria County Council. The combined area evaluated totalled approximately 412m<sup>2</sup>. Excavation was discontinued once the natural geology was reached, which was consistently at a depth of c0.3m below the current ground surface at a height of between 46.7m and 53.5m above sea level. Following the discovery of a group of Early Bronze Age cremations and associated activity in Trench 1, comprising three discrete features, and after discussion with the CCCHEs, a further area of approximately 10m by 10m was excavated around them. This was then extended on the south-west side by a further 5m because the newly discovered features extended close to the edge of the enlarged area on this side. A further eight features were thus revealed and were excavated.

2.3.2 During both the initial evaluation and the subsequent further excavation the topsoil and subsoil deposits were removed using a mechanical excavator with a toothless bucket. Deposits below this, which all comprised features cut into the natural, were subsequently cleaned and further investigated by hand, half sectioned and, deposits recorded and then the remaining fill removed and retained as a bulk sample. The location of each trench or excavation area was recorded relative to nearby property boundaries and other structures that were evident on the site plans and Ordnance Survey mapping utilising a total station. All finds were collected from all deposits, as far as was practical, and the trench and spoil was scanned periodically with a metal detector. The following recording techniques were used during the evaluation and excavation:

- **Written record:** descriptive records of all deposits and features (see *Appendix 2*) were made using Greenlane Archaeology *pro forma* record sheets, either through the use of single trench record sheets or with individual context sheets, with separate sheets detailing samples filled in as appropriate;
- **Photographs:** photographs in both 35mm colour print and colour digital format were taken of all archaeological features uncovered during the evaluation, as well as general views of the site, the surrounding landscape, and working shots. A selection of the colour digital photographs is included in this report and the remainder are included in the archive. A written record of all of the photographs was also made using Greenlane Archaeology *pro forma* record sheets (Greenlane Archaeology 2007);
- **Instrument survey:** the trenches were surveyed using a Leica reflectorless total station coupled to a portable computer running AutoCAD 2006 LT and TheoLT, which captures the survey data in AutoCAD in real-time at a scale of 1:1. This enabled the location of each trench to be positioned



and allowed levels above Ordnance Datum to be provided through reference to a nearby spot height;

- **Drawings:** plans and sections of features were drawn at a scale of 1:10 or 1:20 as appropriate, trench plans were drawn at a scale of 1:100, when it was considered necessary, and additional sketches were made on trench record sheets.

## 2.4 Finds

2.4.1 **Collection:** all of the finds, with the exception of the complete urns, were recovered by hand and stored in self-seal bags with white write-on panels on site before being removed for processing and assessment. The urns were wrapped in cling film and then plaster of Paris bandages to provide a stable and projective outer coating before being placed in plastic crates filled with plastic packaging ('bubble-wrap') for removal from site.

2.4.2 **Processing:** artefacts, with the exception of the complete urns and their contents, were washed (or dried and dry brushed in the case of glass and metal), dried in a drying oven or naturally air-dried, and packaged appropriately in self-seal bags with white write-on panels. The urns will be processed by specialist conservators at the York Archaeological Trust, which will involve the excavation of the cremated material still within each urn and the cleaning and stabilisation of the pottery. A brief initial examination has been carried out by Blaise Vyner prior to conservation and is presented in this report (see *Appendix 4*).

2.4.3 **Assessment and recording:** the finds, with the exception of the urns, were assessed, identified where possible, and a list of them was compiled (see *Appendix 3*).

2.4.4 **Medieval pottery:** the medieval pottery is described in generic terms (e.g. *gritty ware*) with no attempt to link to specific fabrics or specific sources. Brief descriptions of the sherds are given in *Appendix 3* following *Guidelines for the Processing and Publication of Medieval Pottery from Excavations* (Blake and Davey 1983) and *Pottery in Archaeology* (Orton *et al* 2008).

2.4.5 **Animal bone:** none of the animal bone could be identified as it was too fragmentary and in poor condition but it nevertheless is all listed in the finds summary (*Appendix 3*).

2.4.6 **Cremated bone:** the cremated bone that was hand-retrieved during the was processed and stored in the same fashion as the other finds, and will be assessed alongside the material from the urns by Malin Holst in due course.

## 2.5 Environmental Samples

2.5.1 **Strategy:** all of the material contained within or associated with each of the 11 features considered to relate to Early Bronze Age cremation activity (referred to as **Cremation 1-11**) was collected, amounting to 14 samples and approximately 251 litres. This was primarily to ensure 100% retrieval of artefacts and bone, but also to enable other material to be collected, such as charred organics, which would allow an assessment of the local environment but also provide evidence relating to the nature of the cremation process.

2.5.2 **Processing:** the samples will be processed using flotation techniques, with 250µm and 500µm sieves used for the flot, and a 1mm mesh used for the retent. The flots and retents will then be air dried in a drying oven.

2.5.3 **Assessment and recording:** all of the material from the flots will be scanned using a binocular microscope. Identifications, where provided, were confirmed using modern reference material and seed atlases including Cappers *et al* (2006). Any charred plant remains will be recorded using a simple four-point scale as follows: + = rare, ++ = occasional, +++ = common, ++++ = abundant (*Appendix 4*). Artefacts and ecofacts will also be recovered by hand from the retent and recorded and this information will be recorded.

## 2.6 Archive

2.6.1 The archive, comprising the drawn, written, and photographic record of the evaluation, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the Cumbria Archive Centre in Barrow-in-Furness (CAC(B)). The archive has been compiled according to the standards and guidelines of the ClfA (Brown 2007), and in accordance with English Heritage guidelines (English Heritage 1991). In addition details of the project will be submitted to the Online Access to the Index of Archaeological Investigations (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public.

2.6.2 A copy of the report will be deposited with the archive at the Cumbria Archive Centre in Kendal, one will be supplied to the client, and within one month of the completion of fieldwork, a digital copy will be provided for Cumbria County Council Historic Environment Service (CCCHES). In addition, Greenlane Archaeology will retain one copy and a digital copy will be for the OASIS scheme.

2.6.3 The client will be encouraged to transfer ownership of any finds suitable for retention to an appropriate museum, most likely Kendal Museum. If no suitable repository can be found the finds may have to be discarded, and in this case as full a record as possible would be made of them beforehand.

### 3. Historical and Archaeological Background

#### 3.1 Site History

4.1.1 **Prehistoric Period (c11,000 BC – 1<sup>st</sup> century AD):** the earliest evidence of human occupation in the area was found in Kirkhead Cave, 1km south of Allithwaite (roughly 360m south-east of the proposed development area), which has late Upper Palaeolithic (c11,000-8,000 BC) remains (Salisbury 1992, 3). Palaeolithic blades have also been found at Lindale Low Cave to the north-east of Kirkhead (*ibid*; Salisbury 1988) and human and animal bones were also recovered from Kents Bank Cave, of which one of the human bones was more recently dated to the end of the Late Upper Palaeolithic or beginning of the Mesolithic period (Smith *et al* 2013). Mesolithic flints have also apparently been found at Kirkhead Wood, although the source for this information is uncertain (Greenlane Archaeology 2014, 12).

4.1.2 Several Neolithic (c4,000 – 2,500 BC) polished stone axes have been found in the vicinity and Neolithic or possibly Early Bronze Age flints were found at Kirkhead Cave (*ibid*).

4.1.3 Bronze Age (c2,500 – 600 BC) finds from the area include mid to late Bronze Age finds at Kirkhead Cave (Salisbury 1997, 3) and in 1834 a small urn and cremation was found in Yew Tree Field, Allithwaite (although it was considered to be Roman by earlier antiquarians; Watkin 1883, 215), approximately 230m to the west of the proposed development area. A Bronze Age cremation cemetery was also discovered in Allithwaite during excavations in 2001 (Wild 2003, 23) around 560m to the north of the proposed development. This cemetery contained the remains of between 12 and 15 bodies. The burials, four of which were contained in urns, were placed in natural holes in the buried limestone pavement.

4.1.4 **Romano-British to Early Medieval Period (1<sup>st</sup> century AD – 11<sup>th</sup> century AD):** there have been occasional finds of Roman coins from the general area (e.g. Shotter 1989, 41), but evidence has yet to be confirmed of settlement in the area from the period. There has been discussion about the likelihood of Roman military occupation in the Cartmel and Furness Peninsulas for some time (Elsworth 2007), and while there is some evidence it is not entirely convincing.

4.1.5 The early medieval period is not well represented in the area in terms of physical archaeological remains, which is a common situation throughout the county. The Cartmel Peninsula is recorded in a grant made by King Ecgfrith in the 670s or 680s AD to St Cuthbert, which was seemingly made in collusion with the local British nobility who had clearly survived in the area until at least that period (Edmonds 2013, 20). The local area as a whole has a complex mixture of place-names of Celtic British, Anglian (Old English), and Norse type suggesting that the early medieval period was a time of dynamic and rapid population change (Edmonds 2013). Again, physical evidence for settlement of this date is very limited. The place-name 'Allithwaite' is thought to come from a Norse name similar to *Eilifr* and the word 'thwaite', which means clearing (Ekwall 1922, 196).

4.1.6 **Medieval Period (11<sup>th</sup> century AD – 16<sup>th</sup> century AD):** the village of Allithwaite is located in the township of Lower Allithwaite which is first mentioned in c1160. The exact origins and the history of the village of Allithwaite are unclear although it was linked to Furness Abbey from an early date (Ekwall 1922, 196).

4.1.7 **Post-medieval Period (16<sup>th</sup> century AD – present):** agriculture remained the chief industry of the parish during this period, with some fishing for cockles and mussels in Morecambe Bay (Farrer and Brownbill 1914, 256).

#### 3.2 Map Regression

3.2.1 **A Plan of the Division of Lower Allithwaite, 1807:** this map corresponds with the enclosure of land carried out across the Cartmel Peninsula in the early 19<sup>th</sup> century, although unusually it covers areas that were presumably already enclosed at that time. The proposed development area was clearly undeveloped and part of a much larger field at this time, while the village's road network at that date was essentially the same as it is now (CAC(B) WPR 89 Z3 1807; Plate 1).

3.2.2 **Ordnance Survey 1851:** this is the earliest detailed plan of the site available. The proposed development area is still part of a larger field, but it is evident that the much larger field shown on the previous map has been somewhat subdivided in the meantime (Plate 2).



Plate 1 (left): Extract from the enclosure map of 1807

Plate 2 (right): Extract from the Ordnance Survey map, 1851

3.2.3 **Ordnance Survey 1890:** the site is shown as essentially the same open field as it was in 1851 (Plate 3).

3.2.4 **Ordnance Survey 1894:** this map shows the same detail as the 1890 edition (Plate 4; cf. Plate 3). However, this copy is marked with the plots of the c1910 ratings valuation. The site forms part of plot 226, which is listed as 'House Building and Land' and recorded as owned by Henry Hobbart and occupied by William Jackson at the time (CAC(B) BT/IR/1/2 1910).

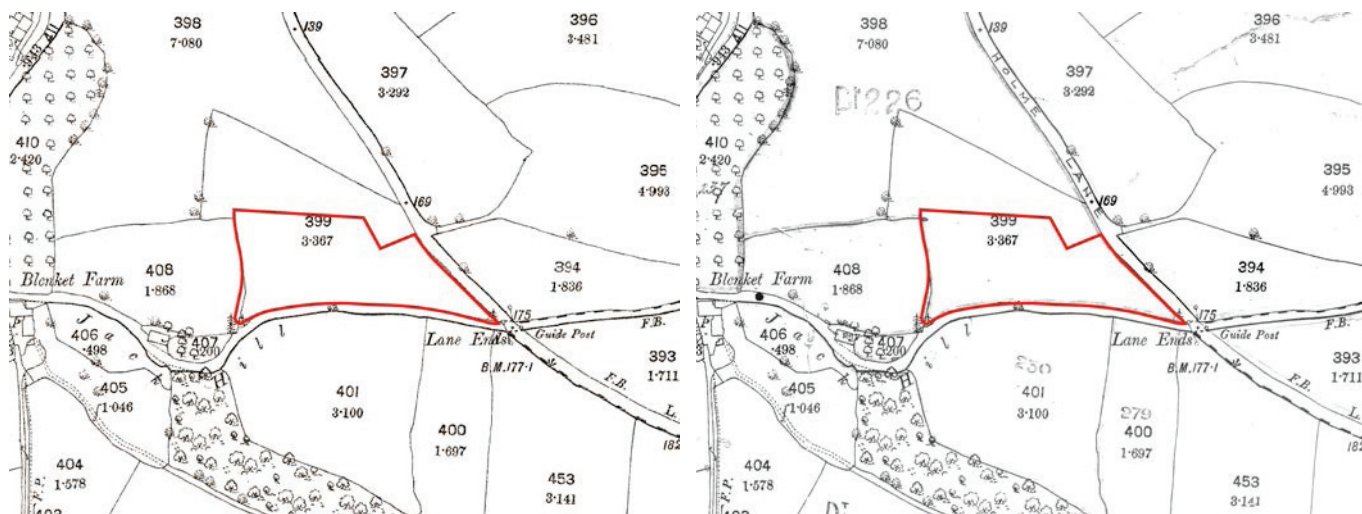


Plate 3 (left): Extract from the Ordnance Survey map, 1890

Plate 4 (right): Extract from the Ordnance Survey map, 1894

3.2.5 **Ordnance Survey 1913:** fields to the south of the area have seen some development but the site is unchanged (Plate 5).

3.2.6 **Ordnance Survey 1933:** the south side of the road has seen further development but the site remains unchanged (Plate 6).

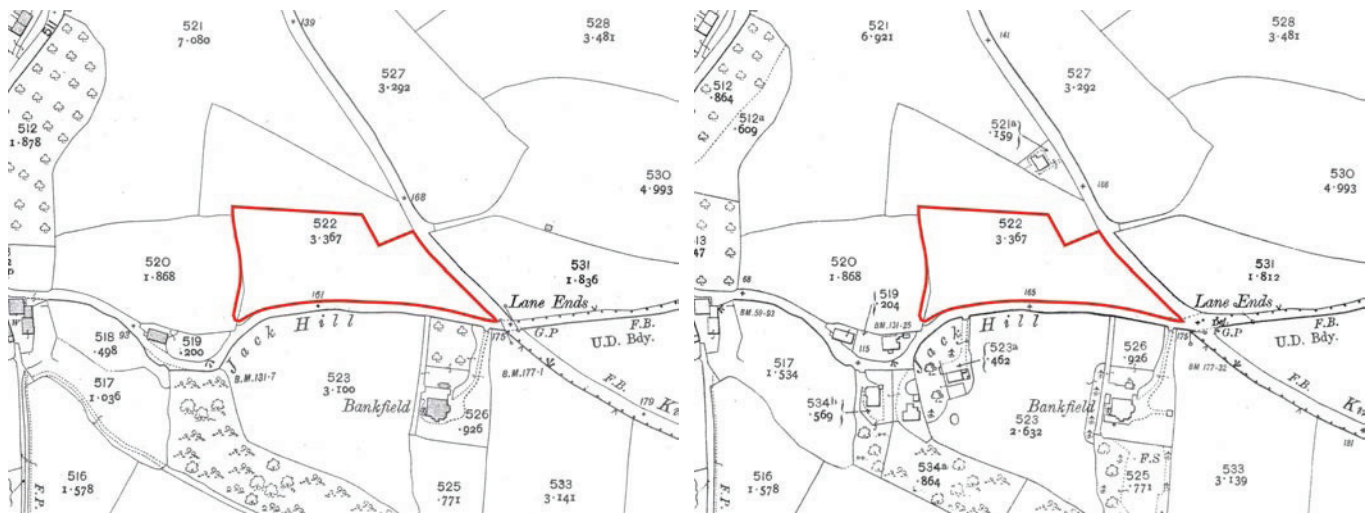


Plate 5 (left): Extract from the Ordnance Survey map, 1913

Plate 6 (right): Extract from the Ordnance Survey map, 1933

### 3.3 Geotechnical Investigation

3.3.1 A previous engineering and environmental assessment has been carried out of the site; of particular relevance is the nine test pits excavated across it (CoDa Structures 2014). These show that in general the site is covered by a topsoil 0.3m thick, underlying which is a sandy or gravelly clay (presumably a subsoil) in places typically up to 1m thick, but only 0.5-0.6m thick on the west side. Beneath this deposit is typically firmer clay and then limestone bedrock.

### 3.4 Conclusion

3.4.1 It is clear from the preceding sections that while there are no known sites of archaeological interest within the proposed development area, there is potential for archaeological remains to be present within the site, especially those of Bronze Age date, although the real likelihood of this is difficult to quantify given the vague nature of some of the available information (Greenlane Archaeology 2014, 15). The site has seem little previous disturbance although is likely to have been subject to ploughing and the bore hole data shows a reasonable thickness of deposits overlying the bedrock and natural strata within which archaeological deposits could have survived, especially if relating to features cut into the natural clay (*ibid*). It is worth noting that in the case of the 13 cremations found in 2001 these were positioned in natural hollows in buried limestone pavement (Wild 2001; 2003).

3.4.2 The map regression shows that the site remained largely undeveloped throughout the 19<sup>th</sup> century.

## 4. Fieldwork Results

### 4.1 Introduction

4.1.1 Ten trenches were excavated, randomly positioned across the site, each approximately 22m long by 1.7m wide; any variations on this are specifically mentioned in the descriptions below. However, because of the discovery of Bronze Age cremation urns in Trench 1 this was initially extended during the evaluation and then a further area was excavated around the section containing the cremations in order to establish whether there were any more present, as described in *Section 4.2.1* below.

### 4.2 Trench 1

4.2.1 The initial trench was orientated approximately north-east/south-west. The topsoil comprised a soft greyish orange silty clay, 0.1-0.2m thick (**100**), which overlay a firm mid-greyish orange silty clay subsoil up to 0.1m thick. This in turn overlay the natural, which comprised a firm mid-brownish orange sandy clay containing 10% rounded gravel (**108**) (Plate 7 and Plate 8). Towards the north-east of the trench three circular features were revealed beneath the subsoil (**101**), cut into the natural (**108**) (Plate 7). The first of these (**Cremation 1**) was 0.3m in diameter and very shallow, as little as 0.05m deep with a rounded base [**103**]. The fill (**102**) comprised a firm mid brown sandy clay and largely comprised the base of a truncated upright vessel, most likely an Early Bronze Age collared urn (Plate 9), although there was little evidence for any burnt material. To the south of this was a larger circular feature (**Cremation 2**), 0.5m in diameter and 0.1m deep, with sides at approximately 45° and a flat base [**105**] (Plate 10 and Plate 11). The fill of this feature comprised a dark greyish-brown silty clay with 1% sub-angular pebbles, lots of charcoal and some burnt bone (**104**). The third feature (**Cremation 3**) was close to the north-east end of the trench and was initially identified by the presence of a concentrated patch of burnt bone and charcoal in the subsoil (**101**). The removal of this revealed the third cut feature (Plate 12), but its proximity to the edge of the trench necessitated the excavation of a further 1m square in order to fully expose it. The cut was then revealed to have a diameter of 0.5m with sides at 45° and a flat base and 0.15m deep [**107**]. The fill comprised a firm mid-dark brown silty clay with 1% angular stones, and included a truncated but largely complete upright Early Bronze Age collared urn (some of the stones were seemingly deliberately placed as packing stones below; Plate 13), as well as charcoal and burnt bone.



**Plate 7 (left): Trench 1 following initial cleaning, with feature 105 visible centre left, viewed from the south-west**

**Plate 8 (right): Trench 1 following initial cleaning, viewed from the south-west**



**Plate 9 (left): Cremation 1 during excavation**

**Plate 10 (right): Cremation 2 before excavation**

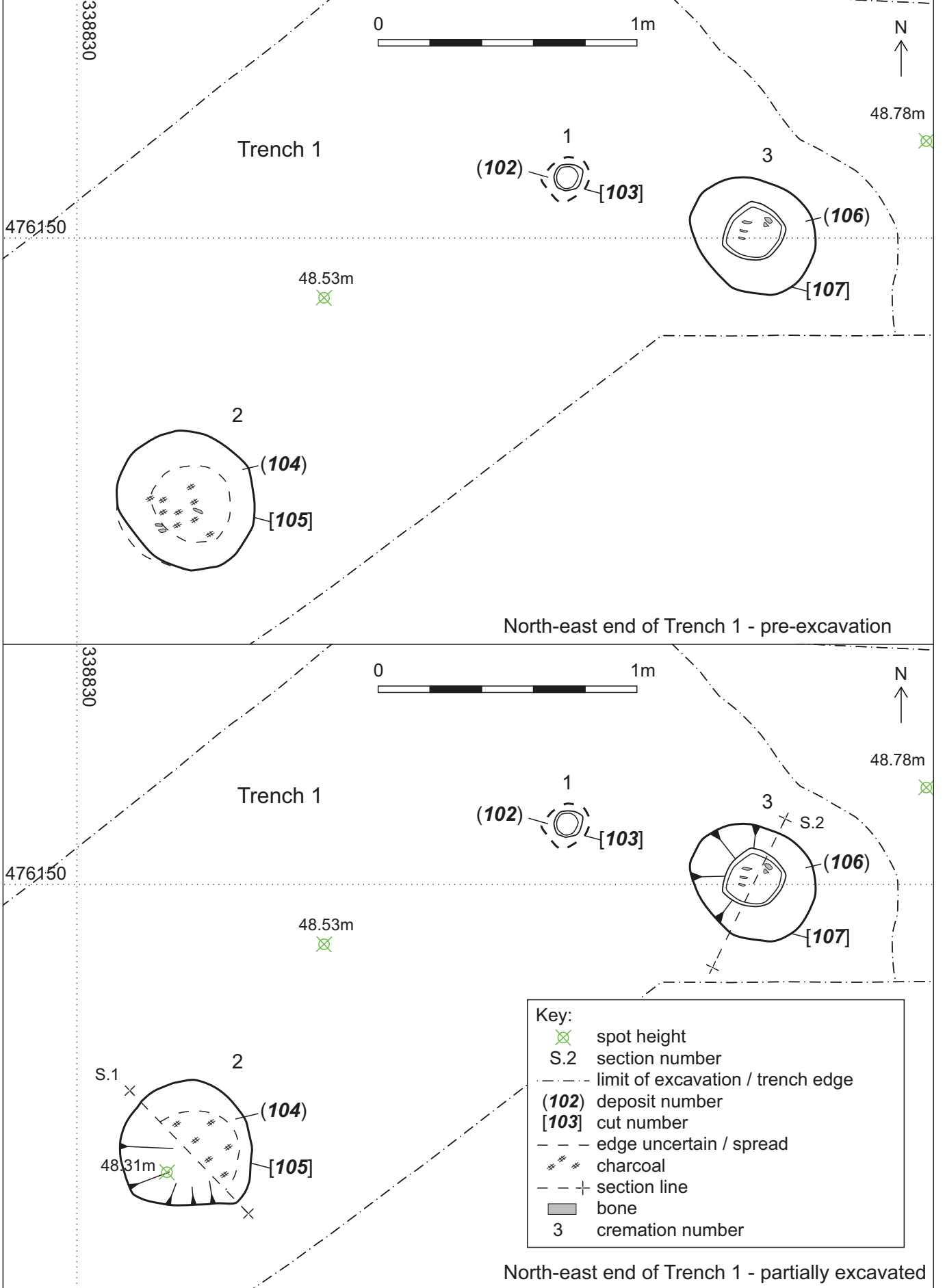


Figure 2: Plans of the north-east end of Trench 1 - pre-excitation and partially excavated



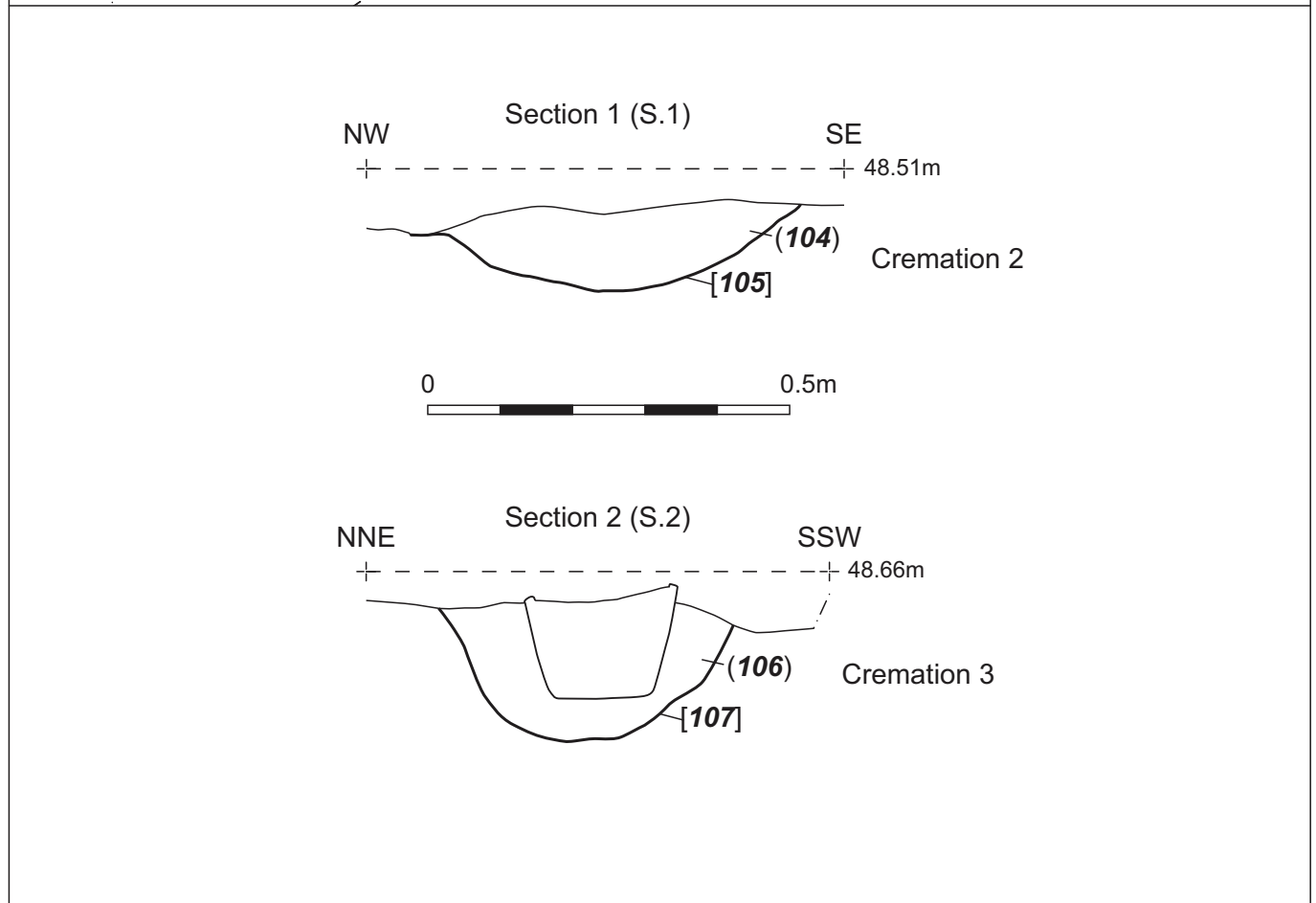
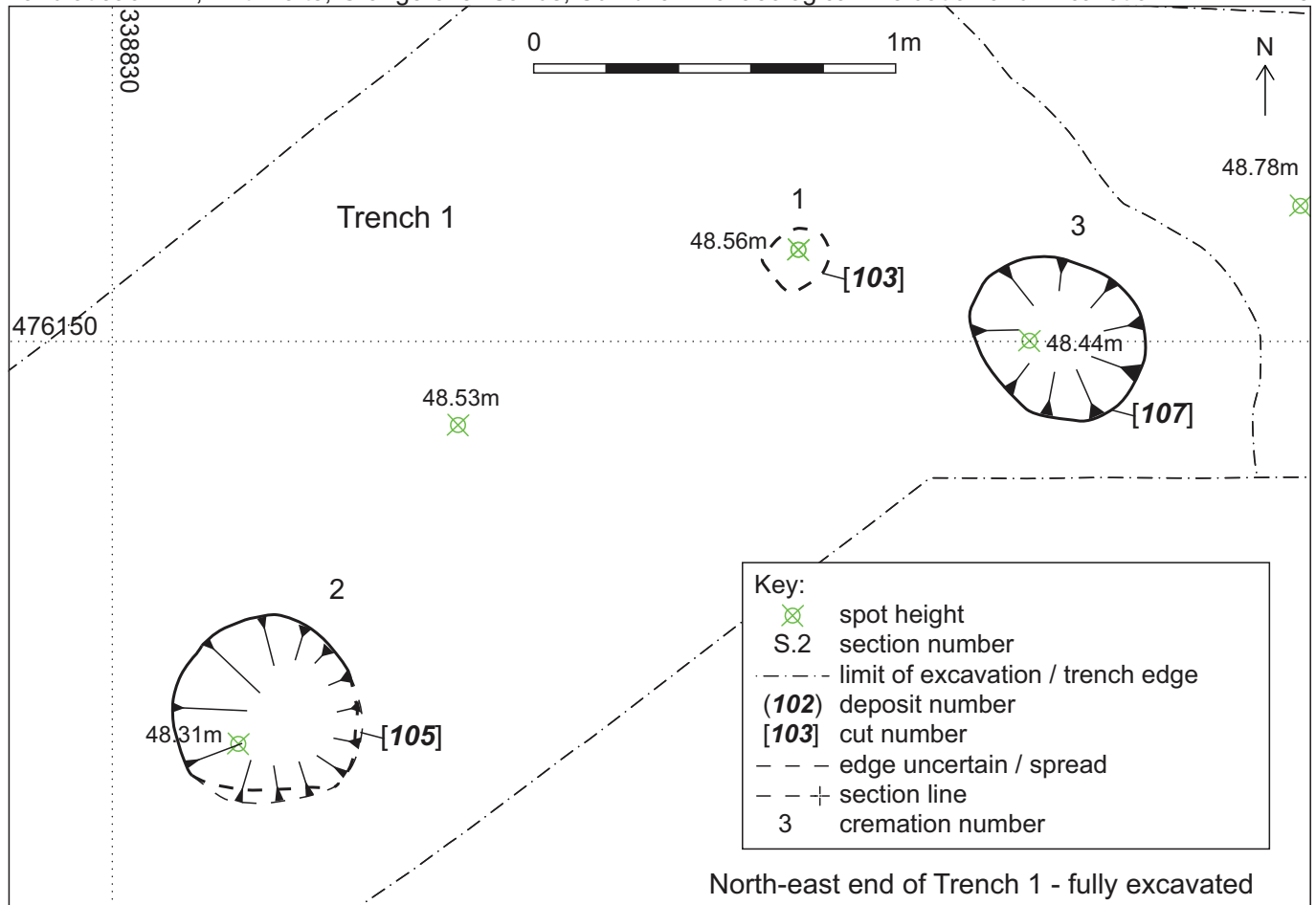


Figure 3: Plan of the north-east end of Trench 1 - fully excavated and sections 1 and 2



Plate 11 (left): Cremation 2, half section

Plate 12 (right): Cremation 3 following removal of material in 101



Plate 13 (left): Cremation 3, half-section

4.2.2 The discovery of these three features, at least two of which clearly comprised cremations of Early Bronze Age date (**Cremation 1** and **Cremation 3**), while **Cremation 2** was also likely to relate to the same activity, led to the excavation of a larger area, 10m by 10m, around these three features, following discussion with the Cumbria County Council Historic Environment Service. This revealed a further eight similar features (Plate 14), all approximately circular in plan and evidently similar in character to the original three (and therefore hereafter referred to as **Cremation 4** to **Cremation 11**). However, as some of these were close to the south-west edge of the larger area, this was extended again to the south-west by a further 5m (again following discussion with the CCCHES) in order to ascertain whether there were any more features present, but nothing additional was revealed.



**Plate 14: The additional features as first revealed**

4.2.3 Of the eight new features encountered three were in a closely set row oriented approximately north/south on the west side of the whole group (Plate 21). The first (**Cremation 4**), comprised a cut 0.35m diameter and 0.25m deep with near vertical sides and a flat base [121] (Plate 15). The fill comprised a mid brown soft silty clay with 1% rounded gravel as well as charcoal and burnt bone and a largely complete but truncated upright Early Bronze Age collared urn (120) (Plate 16). Immediately south-west of this was another very similar feature (**Cremation 5**), which comprised a cut 0.3m in diameter and 0.3m deep with near vertical sides and a flat base [125] (Plate 17), the fill of which comprised a soft mid-brown silty clay with 1% rounded gravel as well as charcoal and burnt bone and a largely complete but truncated upright Early Bronze Age collared urn (124) (Plate 18). Immediately south-west of this was a further feature (**Cremation 6**), which comprised a cut 0.35m in diameter and 0.15m deep with sides at approximately 45° and a rounded or bowl-shaped base [123] (Plate 19). The fill comprised a soft mid-brown silty clay with 1% rounded gravel as well as charcoal and burnt bone and a severely truncated upright Early Bronze Age collared urn (122) (Plate 20).



**Plate 15 (left): Cremation 4 before excavation**



**Plate 16 (right): Cremation 4, half-section**



**Plate 17 (left): Cremation 5 before excavation**



**Plate 18 (right): Cremation 5, half-section**



**Plate 19 (left): Cremation 6 before excavation**



**Plate 20 (right): Cremation 6, half-section**



**Plate 21 (right): Cremations 4-6 during excavation**

4.2.4 To the south-east of this group of three was a pair of features. The first of these, to the west (**Cremation 7**), comprised a cut 0.5m in diameter and 0.3m deep with sides at approximately 45° and a flattish base [119] (Plate 22). The fill comprised a mottled mid brown and dark grey firm silty clay with 1% rounded gravel as well charcoal and burnt bone (118) (Plate 23). The eastern of the two features (**Cremation 8**) comprised a cut of 0.35m diameter and up to 0.4m deep, with near vertical sides and a rounded base [113] (Plate 24). The fill comprised a mottled dark greyish-brown and mid brown silty clay with 1% rounded gravel and large amounts of charcoal and burnt bone, including some large fragments of the latter, as well as a complete small Early Bronze Age accessory vessel, laid on its side at about 1/3 of the depth of the pit (112) (Plate 25).



Plate 22 (left): Cremation 7 before excavation



Plate 23 (right): Cremation 7, half-section



Plate 24 (left): Cremation 8 before excavation



Plate 25 (right): Cremation 8, partially excavated showing accessory vessel

4.2.5 To the north-east was a further group of three features. The first of these, to the south-west (**Cremation 9**), comprised a more oval cut approximately 0.4m long (north-west/south-east) and 0.3m wide (north-east/south-west), 0.4m deep with near vertical sides and a rounded base [117] (Plate 26). The fill comprised a soft dark brown sandy clay with 1% sub-angular pebbles as well as charcoal and burnt bone and a near completed but truncated inverted Early Bronze Age collared urn (116) (Plate 27). To the north-east was a further feature (**Cremation 10**) the cut for which was essentially just the shape of the truncated urn that it contained and was 0.18m in diameter and 0.05m deep with sides at 45° and a flat base [115]. The fill comprised a soft dark brown sandy clay as well as charcoal and bone and the badly truncated base of an upright Early Bronze Age collared urn (114) (Plate 28). The final feature

(**Cremation 11**) comprised a cut with a poorly defined edge 0.4m in diameter and 0.15m deep with sides at less than 45° and an irregular base [111] (Plate 29). The fill comprised a firm mid-orange brown sandy clay with 1% rounded and sub-angular pebbles as well as large quantities of burnt bone (**110**).



Plate 26 (left): Cremation 9 before excavation



Plate 27 (right): Cremation 9, half-section



Plate 28 (left): Cremation 10 partially excavated



Plate 29 (right): Cremation 11 fully excavated

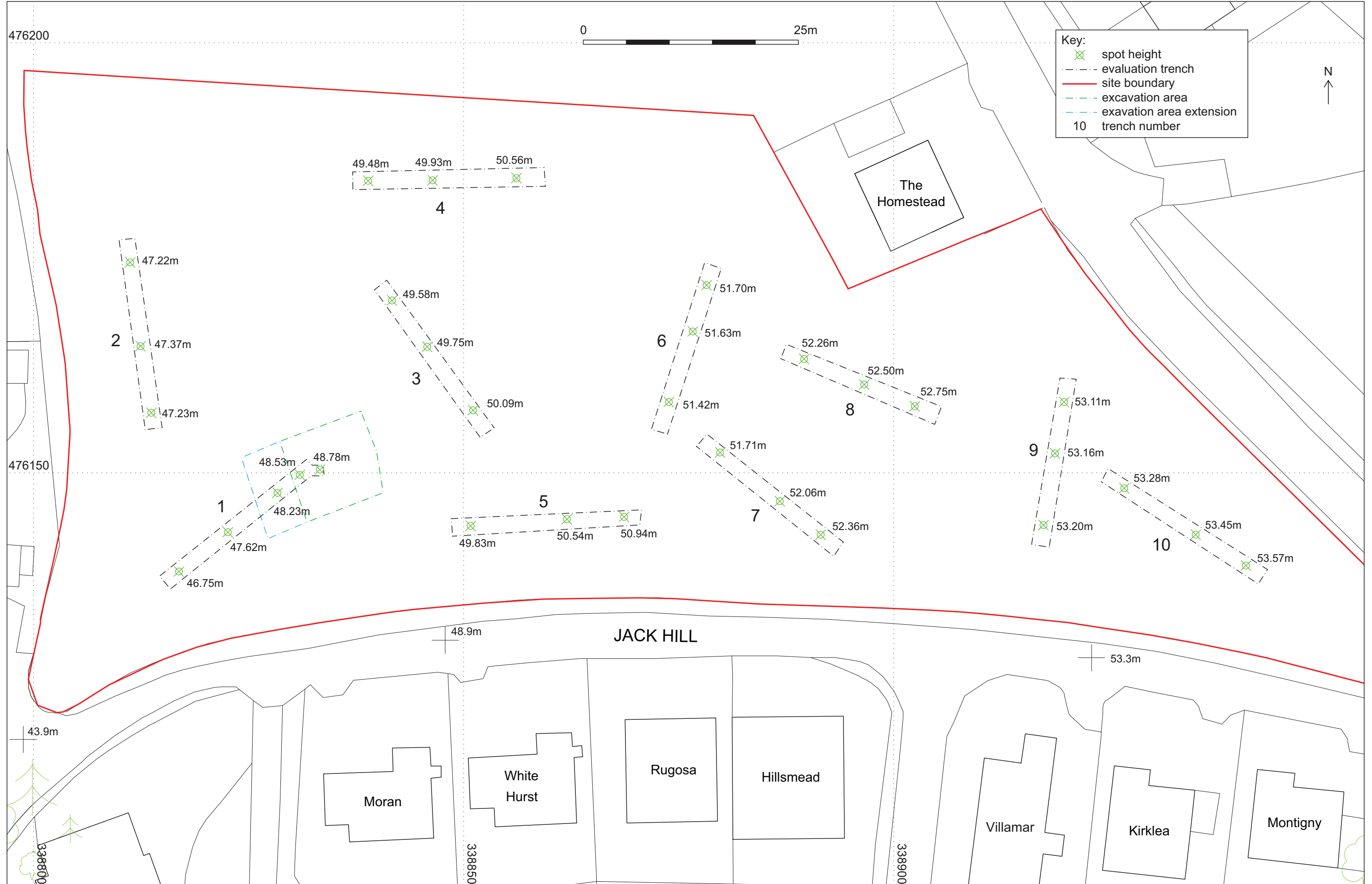


Figure 4: Trench location plan showing levels and areas of excavation

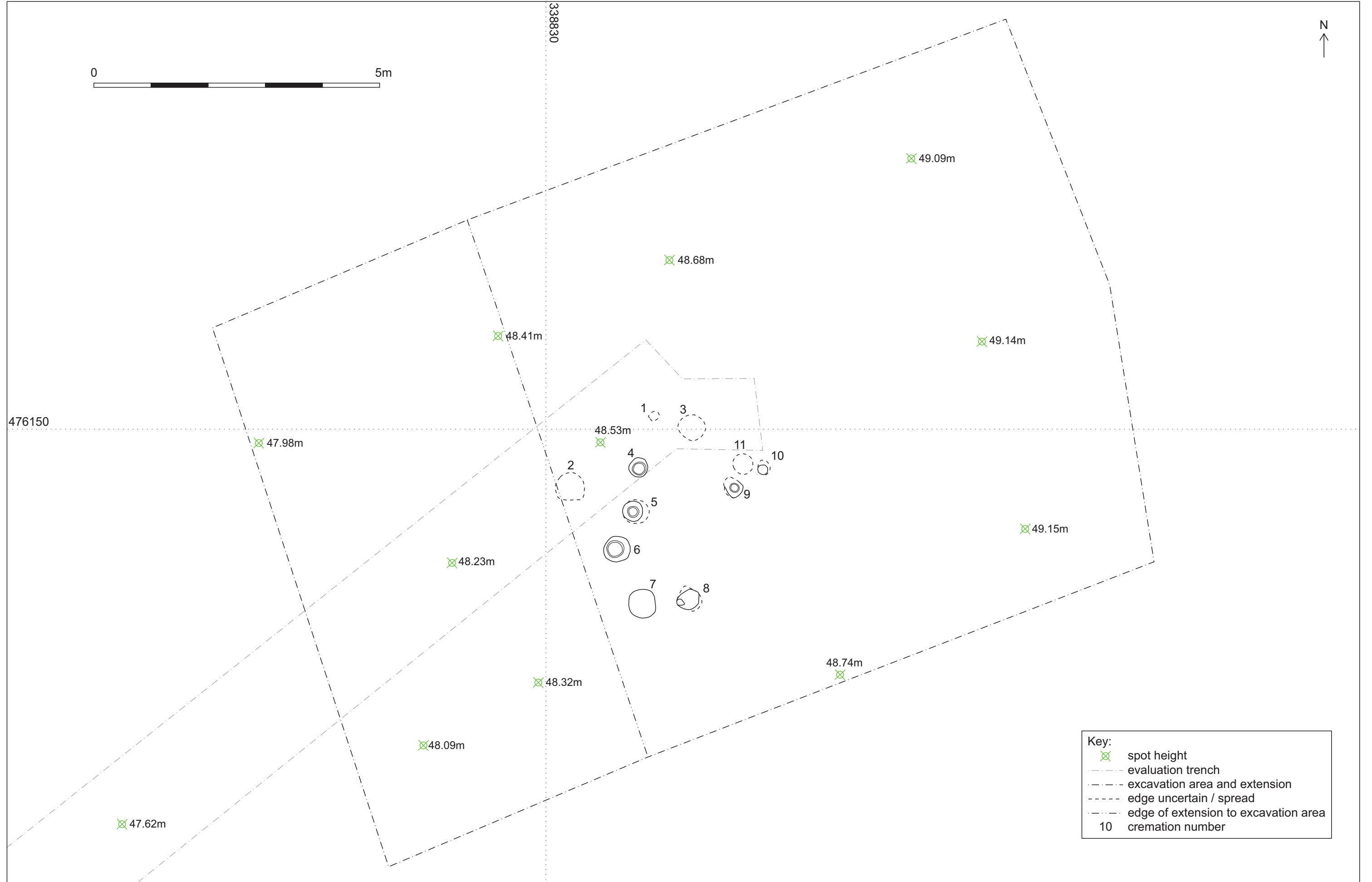


Figure 5: Plan of the excavation area, including the extended area of excavation



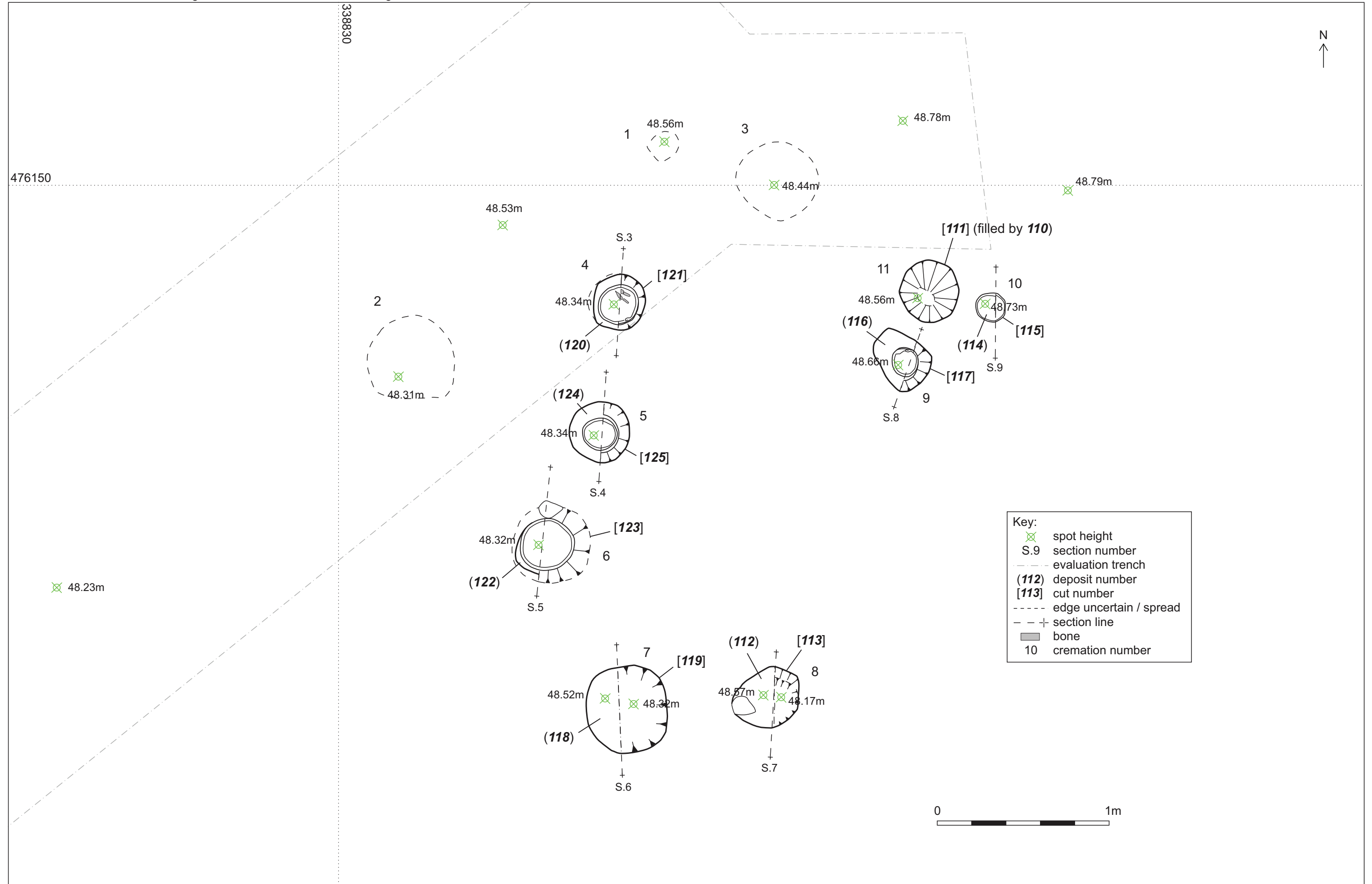


Figure 6: Detailed plan of cremation burials in extension to Trench 1

Plan of Cremation 8 - partially excavated to show position of accessory vessel

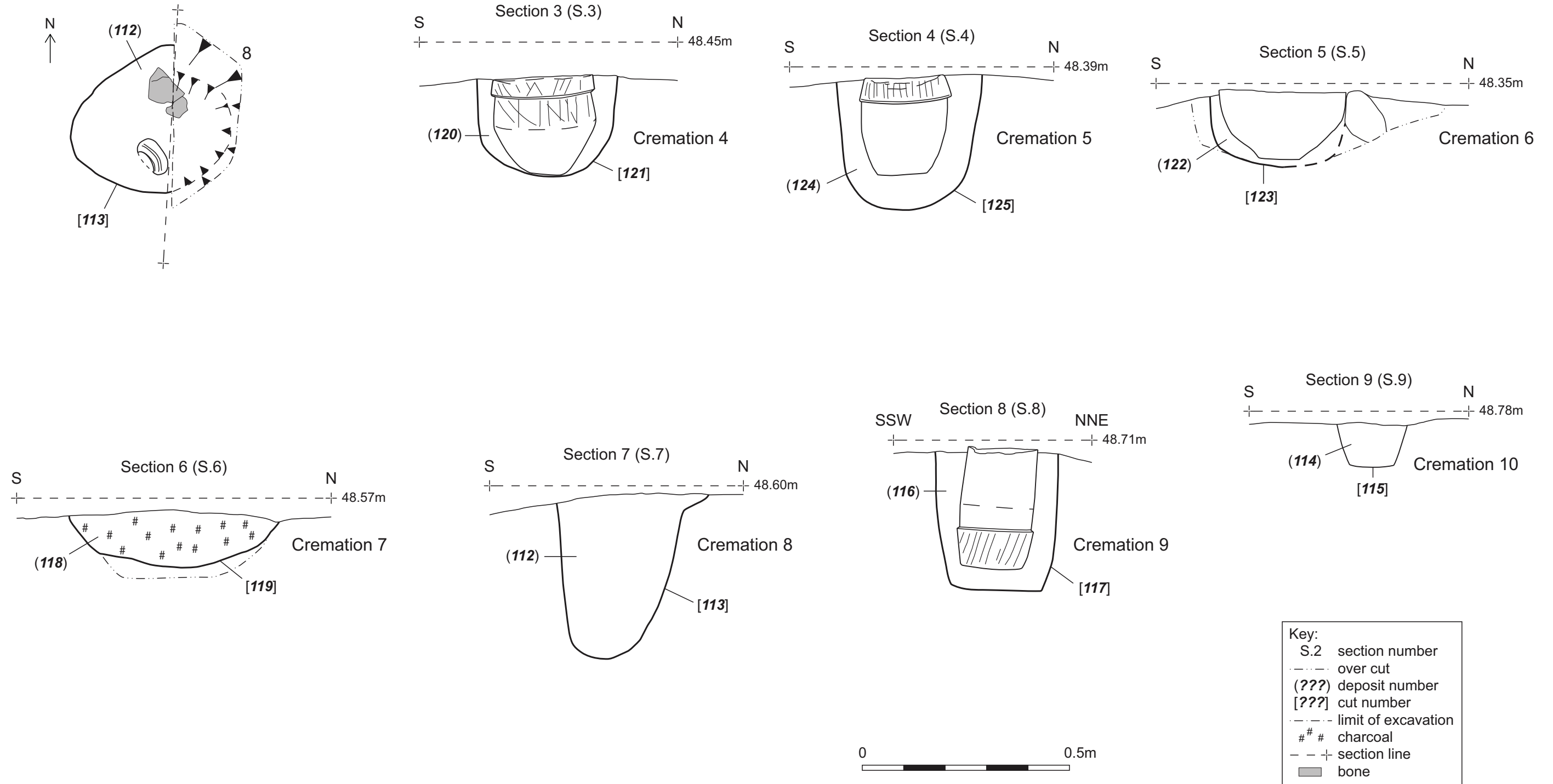


Figure 7: Plan of Cremation 8, partially excavated, and sections 3 to 9

## 4.3 Trench 2

4.3.1 This trench was orientated approximately north/south. The topsoil comprised a dark greyish-brown soft silty clay ranging from 0.1-0.2m thick (**200**), which overlay a soft mid-greyish orange firm silty clay subsoil up to 0.1m thick (**201**). This in turn overlay the natural, which comprised a firm mid orange clay with 5% rounded pebbles and gravel (**202**). No features of archaeological interest were encountered.



**Plate 30 (left): Trench 2 following initial cleaning, viewed from the north**

**Plate 31 (right): Trench 2 following initial cleaning, viewed from the south**

## 4.4 Trench 3

4.4.1 This trench was orientated approximately north-west/south-east. The topsoil comprised a mid greyish-orange soft silty clay, 0.1-0.2m thick (**300**), which overlay a mid brownish orange soft silty clay subsoil containing 1% rounded pebbles, up to 0.1m thick (**301**). This in turn overlay the natural, which comprised a firm mid brownish-orange sandy clay with 5% rounded pebbles (**302**). No features of archaeological interest were encountered.



**Plate 32 (left): Trench 3 following initial cleaning, viewed from the north-west**



**Plate 33 (right): Trench 3 following initial cleaning, viewed from the south-east**

## 4.5 Trench 4

4.5.1 This trench was orientated approximately east/west. The topsoil comprised a mid-greyish orange soft silty clay, ranging from 0.1-0.3m thick (**400**), which overlay a soft mid orange-brown silty clay subsoil with 1% rounded pebbles up to 0.1m thick (**401**). This in turn overlay the natural, which comprised a firm mid orange-yellow clay with 5% rounded pebbles and gravel (**402**). No features of archaeological interest were encountered.



**Plate 34 (left): Trench 4 following initial cleaning, viewed from the east**



**Plate 35 (right): Trench 4 following initial cleaning, viewed from the west**

## 4.6 Trench 5

4.6.1 This trench was orientated approximately east/west. The topsoil comprised a soft mid-greyish brown silty clay, ranging from 0.1-0.2m thick (**500**), which overlay a soft mid-orange brown silty clay subsoil containing 1% rounded gravel up to 0.1m thick (**501**). This in turn overlay the natural, which comprised a firm mid-orange sandy clay with 5% rounded gravel (**502**). No features of archaeological interest were encountered.



Plate 36 (left): Trench 5 following initial cleaning, viewed from the east

Plate 37 (right): Trench 5 following initial cleaning, viewed from the west

## 4.7 Trench 6

4.7.1 This trench was orientated approximately north-east/south-west, and was approximately 21m long by 1.8m wide. The topsoil comprised a soft mid grey brown silty clay typically 0.2m thick (**600**), which overlay a soft mid-greyish orange silty clay subsoil up to 0.1m thick (**601**). This is in turn overlay the natural, which comprised a firm mid orange sandy clay, mottled with patches of more yellow clay, and containing 1% rounded cobbles and 20% rounded gravel (**602**). No features of archaeological interest were encountered.



**Plate 38 (left): Trench 6 following initial cleaning, viewed from the south-west**



**Plate 39 (right): Trench 6 following initial cleaning, viewed from the north-east**

## 4.8 Trench 7

4.8.1 This trench was orientated approximately north-west/south east, and was approximately 21m long by 1.9m wide. The topsoil comprised a soft mid-greyish brown silty clay, 0.15-0.2m thick (**700**), which overlay a soft mid greyish orange silty clay subsoil 0.1m thick (**701**). This in turn overlay the natural, which comprised a firm mottled yellowish and orange sandy clay containing 1% rounded cobbles and 15% rounded gravel (**702**). No features of archaeological interest were encountered.



**Plate 40 (left): Trench 7 following initial cleaning, viewed from the south-east**



**Plate 41 (right): Trench 7 following initial cleaning, viewed from the north-west**

## 4.9 Trench 8

4.9.1 This trench was orientated approximately north-west/south-east, and was approximately 20m long by 1.8m wide. The topsoil comprised a soft mid-greyish brown silty clay, 0.1m thick (**800**), which overlay a soft mid-orangey brown silty clay subsoil, 0.1m thick and containing 1% rounded gravel (**801**). This in turn overlay the natural, which comprised a firm mottled yellow and orangey-brown clay containing 1% rounded cobbles and 10% rounded gravel (**802**). No features of archaeological interest were encountered.



**Plate 42 (left): Trench 8 following initial cleaning, viewed from the north-west**

**Plate 43 (right): Trench 8 following initial cleaning, viewed from the south-east**

## 4.10 Trench 9

4.10.1 This trench was orientated approximately north-east/south-west, and was approximately 20m long by 2m wide. The topsoil comprised a soft mid-greyish brown silty clay up to 0.2m thick (**900**), which overlay a soft mid orangey-brown silty clay with 1% rounded gravel up to 0.1m thick. This in turn overlay the natural, which comprised a firm mid-orange sandy clay, containing 1% rounded cobbles and 10% rounded gravels (**900**). No features of archaeological interest were encountered.



**Plate 44 (left): Trench 9 following initial cleaning, viewed from the south-west**

**Plate 45 (right): Trench 9 following initial cleaning, viewed from the north-east**

#### 4.11 Trench 10

4.11.1 This trench was orientated approximately north/south, and was approximately 22m long by 1.8m wide. The topsoil comprised a soft mid-greyish brown silty clay up to 0.2m thick (**1000**), which overlay a soft mid-orange brown silty clay subsoil up to 0.1m thick (**1001**). This in turn overlay the natural, which comprised a firm mid-orange sandy clay containing 1% rounded cobbles and 10% rounded gravel (**1002**). No features of archaeological interest were encountered.



**Plate 46 (left): Trench 10 following initial cleaning, viewed from the north**

**Plate 47 (right): Trench 10 following initial cleaning, viewed from the south**



## 4.12 Finds

4.12.1 **Introduction:** in total, 131 finds were recovered by hand during the evaluation, excluding the Early Bronze Age cremation urns and associated fragments of pottery, which will be dealt with separately although an initial assessment carried out by Blaise Vyner is presented in *Appendix 4*. The other finds have been organised by category in the following sections. A complete list is provided in *Appendix 3*.

4.12.2 **Medieval ceramic material:** five pieces of probably medieval ceramic material were recovered, possibly including small lumps of fired clay (Plate 48). Vessel forms could not be identified. The fragment from context **300** was from a vessel with a whitish, gritty fabric, with an oxidised light orange interior (bottom Plate 48 and Plate 49), possibly mid-11<sup>th</sup> to 13<sup>th</sup> century in date (summarised in Mace 2011, 8). The soft, oxidised, sandy fragments from context **900** and **1000** may represent variations within the sandy ware tradition, in which case they are likely to date from the 12<sup>th</sup> to 14<sup>th</sup> century (*ibid*), although if this is indeed the case then they are unusually soft (see, for example, Greenlane Archaeology 2011, 19); they could conceivably be pieces of fired clay of earlier date (top row: Plate 48 and Plate 49).

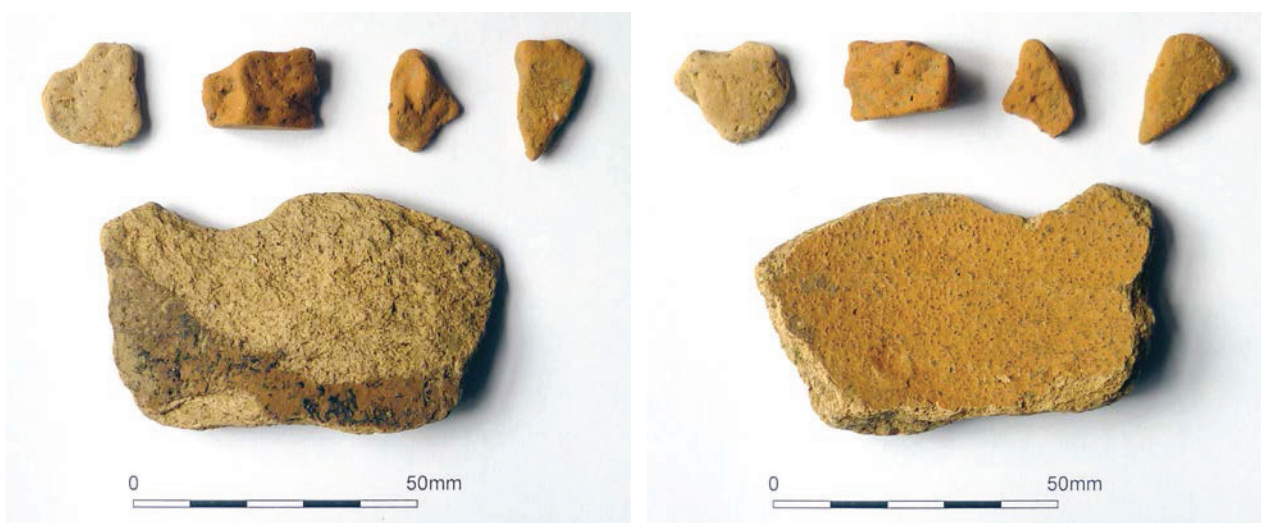


Plate 48 (left): Probable medieval ceramic material (exterior shown, when known)

Plate 49 (right): Probable medieval ceramic material (interior/reverse side)

4.12.3 **Undated ceramic material:** two refitting daub lump fragments with voids from organics were recovered from context **200**. These are not closely dateable.

4.12.4 **Post-medieval pottery:** 100 fragments of post-medieval pottery were recovered from the site. Overall the assemblage potentially ranges in date from the late 17<sup>th</sup> to 20<sup>th</sup> century and reflects typical domestic ware types. The potential date range for the black- and brown-glazed red earthenware in particular is very broad due to the persistence of the styles and fabrics, however, the more closely dateable types, including some of the bone china and white earthenware, show noticeable concentrations of 19<sup>th</sup> century and later material within the assemblage and these are probably often better indicators of dating for the other fabrics within each context.

4.12.5 **Post-medieval Glass:** three pieces of late post-medieval glass were recovered, comprising fragments of very light turquoise bottles (from context **900** and **1000**) and a heat affected green bottle fragment from context **1000**.

4.12.6 **Post-medieval metal and metal alloy finds:** 10 metal and metal alloy objects were recovered, comprising mostly corroded iron nails. Most of the material is not closely dateable, although it is all thought likely to be post-medieval in date, including probable lead fishing weight from context **600**.

4.12.7 **Ceramic building material:** fragments of red earthenware brick were recovered from contexts **700** and **900**.

4.12.8 **Clay tobacco pipe**: six clay tobacco pipe fragments, including five plain stem fragments and one stem/bowl junction, were recovered in total from four contexts (contexts **600**, **700**, **900**, and **1000**). This is too few fragments per context for any reliable use of stem-bore diameter analysis to date the archaeological contexts from which these pieces were derived (Davey 1975); however, the propensity of relatively narrow bore diameters (4/64" and 5/64") suggests an 18<sup>th</sup> to 19<sup>th</sup> century date for the assemblage overall (after Davey 2013). The stem/bowl junction from context **1000** has a short, narrow, flat-bottomed spur (Plate 50) and probably also dates from the 18<sup>th</sup> to 19<sup>th</sup> century (Atkinson and Oswald 1969; Ayto 1994).



**Plate 50: Clay tobacco pipe stem/bowl junction with spur from context 1000**

4.12.9 **Animal bone**: one small fragment of unidentified animal bone was recovered from each of contexts **100**, **900** and **1000**. None of the bone had been burnt and there were no obvious butchery marks.

## 4.13 Environmental Samples

4.13.1 Four bulk samples from four contexts were recovered during the initial phase of the evaluation and a further 10 samples from 10 contexts were recovered during the subsequent work (see *Appendix 4*). All of these comprise material from the 11 cremations and have been collected in order to facilitate the 100% recovery of material relating to these features.

4.13.2 None of the samples has yet been processed but as part of the analysis process they will all be 100% wet sieved in order to retrieve larger artefacts and ecofacts from the flots and smaller material, including evidence relating to the environment, from the flots.

## 5. Conclusion

### 5.1 Results

5.1.1 The same basic sequence of deposits was encountered in each trench: a thin layer of topsoil overlying a thinner layer of subsoil, on top of the natural. Only in Trench 1 were any features of archaeological interest encountered. The medieval pottery recovered from the topsoil in Trenches 3, 9, and 10 suggests that there has been activity across the site from at least this period, although this is likely to have only been agricultural in nature; the finds entering the soil as part of midden material introduced as fertiliser from nearby settlements. The post-medieval finds are likely to have accumulated in the same fashion, although some could have been dumped as rubbish from nearby houses.

5.1.2 In Trench 1 and its extension significant archaeological remains were present in the form of 11 individual features all apparently forming part of a cremation cemetery, eight of which contained Early Bronze Age vessels, in varying condition and degrees of completeness, and the remaining three are undoubtedly related in terms of date and function. Some variation in the manner of the burials is evident as one was inverted while the majority were upright, and of these some appear to have been deposited at different depths perhaps suggesting repeated use of an existing area of burials over a long period of time. In addition, at least one was chocked into position with stones, while the accessory vessel was placed on its side seemingly as part of a mixed deposit in a single pit. The discovery represents an important one for the area, especially given the relatively recent find of a similar-sized cremation cemetery less than 1km to the north in 2001 (Wild 2003).

### 5.2 Discussion

5.2.1 Despite evidence that the field has been subject to improvement in the form of ploughing at various times in its history, most likely in the medieval period and again late in the post-medieval period based on the finds from the topsoil, a significant group of Early Bronze Age cremations has been uncovered. All of these have been damaged and, with the exception of the small accessory vessel found in the fill of pit [113] (**Cremation 8**) all of the associated vessels have been truncated. In some cases this truncation is quite severe, leaving on the bases in the case of **Cremation 1** and **10**, and little more than the base in the case of **Cremation 6**, but nevertheless these remains are still important and as part of a group with the other, more complete, eight vessels there is considerable potential for improving our understanding of the burial rites of this period, something that is currently being rapidly advanced by the recent discovery and publication of the other cemetery from Allithwaite (Wild 2003), a smaller cemetery from nearby Dallam (Platell, *et al* 2013), and much larger discovery at Overby Quarry, Aspatria (North Pennines Archaeology 2010), for which publication is forthcoming.

5.2.2 The results of the work at Jack Hill, Allithwaite, have the potential to contribute to at least two of the aims presented in the recent Research Agenda and Strategy (Hodgson and Brennand 2007), as listed below:

- 2.46 '*Further understanding of the Bronze Age funerary record would be considerably enhanced by the formation of [a] regional typology and chronology of ceramic sequences*' (*op cit*, 45);
- 2.61 '*Prehistoric pottery typologies are still poorly understood, and are reliant on chronologies and parallels from outside the region. The priority must be for more absolute dates, both from existing archives and by further scientific dating of contexts where prehistoric pottery types are securely stratified (particularly on developer-funded projects)*' (*ibid*, 49);

### 5.3 Recommendations

5.3.1 Following conservation of the urns and the processing of the samples, which will reveal the presence of any remaining artefacts and/or cremated bone, as well as environmental evidence, the results of the excavation, where it pertained to the Early Bronze Age cremations, should be published. This would require full analysis of the related pottery and bone, but also analysis of environmental remains and other material, as appropriate. The publication report will not only require text describing in

detail the results of the work and the finds, with specialist reports for the latter, but will need full illustrations of the artefacts, in particular the urns, and the features revealed during the work. It is likely that the resulting publication will be of a suitable length to form a journal article, and it is suggested that it be submitted for inclusion in the *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*.

## 6. Bibliography

### 6.1 Primary and Cartographic Sources

CAC(B) BT/IR/1/2, 1910 *Duties on Land Values, Records of Valuations Made by the Commissioners of Inland Revenue, in Accordance with the Provisions of Part 1 of the Finance (1909/10) Act, 1910. County of Lancaster Division of Lonsdale North. A Valuation Book for the Parish or Place of Allithwaite Lower and Upper Broughton East Cartmel Fell, Grase Staveley, Holker Lower and Upper*

CAC(B) DDHJ/4/2/1/8, 1860s-1872 *Cartmel: Coins and Urns Found in Cartmel Parish*

CAC(B) WPR 89 Z3, 1807 *Plan of Ancient Inclosures in the Division of Upper Holker and Part of the Allotments Within the Parish of Cartmel*, (microfilm copy)

Ordnance Survey, 1851 *Lancashire Sheet 17*, 1: 10,560, surveyed 1847-1848

Ordnance Survey, 1890 *Lancashire Sheet 17.6*, 1: 2,500, surveyed 1889

Ordnance Survey, 1894 *Lancashire Sheet 17.6*, 1: 2,500, surveyed 1889

Ordnance Survey, 1913 *Lancashire Sheet 17.6*, 1: 2,500, revised 1910

Ordnance Survey, 1933 *Lancashire Sheet 17.6*, 1: 2,500, revised 1932

Ordnance Survey, 2011 *The English Lakes South-Eastern Area: Windermere, Kendal & Silverdale*, **OL7**, 1:25,000

### 6.2 Secondary Sources

Atkinson, D, and Oswald, A, 1969 London clay tobacco pipes, *J Archaeol Assoc*, third series, **32**, 171-227

Ayto, EG, 1994 *Clay Tobacco Pipes*, third edition, Haverfordwest

Blake, H, and Davey, P, 1983 *Guidelines for the Processing and Publication of Medieval Pottery from Excavations*, Directorate of Ancient Monuments and Historic Buildings, Occ Paper 5, London

Brown, DH, 2007 *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer, and Curation*, IfA, Reading

Cappers, RTJ, Bekker, RM, and Jans, JEA, 2006 *Digital seed atlas of the Netherlands*, Groningen (Netherlands)

ClfA (Chartered Institute for Archaeologists), 2014 *Standard and Guidance: Archaeological Field Evaluation*, revised edn, Reading

CoDa Structures, 2014 *Phase 1 & Phase 2 Engineering and Environmental Assessment for Proposed Residential Development Site Adjacent Jack Hill, Allithwaite, Grange-over-Sands*

Countryside Commission, 1998 *Countryside Character, Volume 2: North West*, Cheltenham

Davey, PJ, 1975 Stem Bore Analysis of Chester Clay Tobacco Pipes, *Cheshire Archaeological Bulletin*, **3**, 29-34

Davey, PJ, 2013 The Clay Tobacco Pipes, in J Walker and M Graham (eds), *St. Mary's Abbey, Holme Cultram, Abbeytown, Cumbria*, Bowness on Windermere, 88-92

Edmonds, F, 2013 The Furness Peninsula and the Irish Sea Region: Cultural Interaction from the Seventh Century to the Twelfth, in C Downham (ed), *Jocelin of Furness: Essays from the 2011 Conference*, Donnington, 17-44

Elsworth, DW, 2007 The "Streetgate" at Conishead, the "Castellum" at Dalton, and Roman Furness, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 3<sup>rd</sup> ser, **7**, 31-48

English Heritage, 1991 *The Management of Archaeological Projects*, 2<sup>nd</sup> edn, London

- Farrer, W, and Brownbill, J, 1914 *The Victoria History of the County of Lancaster*, **8**, London
- Greenlane Archaeology, 2007 *Archaeological Excavation Manual*, unpubl rep
- Greenlane Archaeology Ltd, 2011 *Fairfield, Cartmel, Cumbria: Archaeological Evaluation*, unpubl rep
- Greenlane Archaeology, 2014 *Land at Jack Hill, Allithwaite, Grange-over-Sands, Cumbria: Archaeological Desk-Based Assessment*, unpubl rep
- Hodgson, J. and Brennand, M. 2006 The prehistoric period resource assessment, in M. Brennand (ed) *The Archaeology of North West England: An Archaeological Research Framework for North West England 1, Resource Assessment*, 23-58, *Archaeology North West* **8**
- Hodgson, J, and Brennand, M, 2007 The Prehistoric Period Research Agenda, in M Brennand (ed), *The Archaeology of North West England – An Archaeological Research Framework for North West England: Volume 2 Research Agenda and Strategy*, Archaeology North West, **9**, Manchester, 31-54
- Longworth, IH, 1967 Contracted mouth Accessory Cups, *British Museum Quarterly* **31**, 111-22
- Longworth, IH, 1984 *Collared Urns of the Bronze Age in Great Britain and Ireland*, Cambridge
- Mace, T, 2011 The Medieval Pottery Assemblage, in Greenlane Archaeology *Holm Cultram Abbey, Abbeytown, Cumbria: Pottery and Clay Tobacco Pipe Analysis*, unpubl rep, 8-27
- Moseley, F (ed), 1978 *The Geology of the Lake District*, Yorkshire Geological Society, occ publ **3**, Leeds
- North Pennines Archaeology, 2010 *Overby Quarry, Aikshaw, Aspatria, Cumbria: Archaeological Excavation Interim Report*, unpubl rep
- Orton, C, Tyers, P, and Vince, A, 2008 *Pottery in Archaeology*, Cambridge, 10<sup>th</sup> printing (1993)
- Platell, A, Vyner, B, Caffell, A, Elliot, L, Mole, J, and Jones, J, 2013 A Bronze Age Cremation Cemetery at Dallam School, Milnthorpe, Cumbria, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 3<sup>rd</sup> ser, **13**, 33-56
- Richardson, J, and Vyner, BE, 2011 An Exotic Early Bronze Age Funerary Assemblage from Stanbury, West Yorkshire, *Proc Prehist Soc*, **77**, 49-63
- Salisbury, CR, 1988 Late Upper Palaeolithic Artefacts from Lindale Low Cave, *Antiquity*, **62**, 510-513
- Salisbury, CR, 1992 The Pleistocene Exploitation of Cumbria: a Review of the Evidence, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2<sup>nd</sup> ser, **92**, 1-7
- Salisbury, CR, 1997 The Prehistoric Occupation of Blenkett Wood near Allithwaite, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2<sup>nd</sup> ser, **97**, 1-11
- Shotter, DCA, 1989 Roman coin-finds in Cumbria, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2<sup>nd</sup> ser, **89**, 41-50
- Smith, IA, Wilkinson, DM, and O'Reagan, HJ, 2013 New Lateglacial fauna and early human Mesolithic human remains from northern England, *J Quaternary Science*, **28:6**, 542-544
- Total Angler, 2015 <http://www.totalangler.co.uk/pages/weights>
- Vyner, B.E. 2013 Pottery, in A Plattell, A Bronze Age cremation Cemetery at Dallam School, Milnthorpe, Cumbria, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 3<sup>rd</sup> ser, **13**, 38-41
- Vyner, B.E. 2014 *Report on Pottery from Overby Quarry, Cumbria (NPA08)*, unpubl rep for Wardell Armstrong Archaeology
- Watkin, WT, 1883 *Roman Lancashire*, Liverpool
- Wild, C, 2001 Excavation of a Bronze Age Cemetery at Church Road, Allithwaite, South Cumbria, *Archaeology North*, **18**, 10-13
- Wild, C, 2003, A Bronze Age Cremation Cemetery at Allithwaite, Cumbria, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 3<sup>rd</sup> Series, **3**, 23-50

## Appendix 1: Project Design

# LAND AT JACK HILL, ALLITHWAITE, GRANGE-OVER-SANDS, CUMBRIA

Archaeological Evaluation Project Design



Client: Applethwaite Ltd

NGR: 338864 476163 (centre)

April 2015

## 1. Introduction

### 1.1 Project Background

1.1.1 As part of the submission of a planning application by Applethwaite Ltd (hereafter 'the client') for the construction of a residential development on land at Jack Hill, Allithwaite, Grange-over-Sands, Cumbria (NGR 338864 476163 (centre)), Greenlane Archaeology was commissioned to carry out an archaeological desk-based assessment of the site, following advice from the Cumbria County Council Historic Environment Service (CCCHES). This revealed that the area is surrounded by sites of archaeological interest, in particular examples of prehistoric burial and other finds of the same date (Greenlane Archaeology 2014). As a result a further programme of archaeological evaluation was requested by the CCCHES in order to reveal whether any remains of archaeological interest are present on the site. This project design was produced in response.

### 1.2 Greenlane Archaeology

1.2.1 Greenlane Archaeology is a private limited company based in Ulverston, Cumbria, and was established in 2005 (Company No. 05580819). Its directors, Jo Dawson and Daniel Elsworth, have a combined total of over 20 years continuous professional experience working in commercial archaeology, principally in the north of England and Scotland. Greenlane Archaeology is committed to a high standard of work, and abides by the Chartered Institute for Archaeologists' (CIfA) Code of Conduct. The evaluation will be carried out according to their standards and guidance.

### 1.3 Project Staffing

1.3.1 The project will be managed and supervised by **Dan Elsworth (MA (Hons), ACIfA)** with suitably qualified assistance. Daniel graduated from the University of Edinburgh in 1998 with an honours degree in Archaeology, and began working for the Lancaster University Archaeological Unit, which became Oxford Archaeology North (OA North) in 2001. Daniel ultimately became a project officer, and for over six and a half years worked on excavations and surveys, building investigations, desk-based assessments, and conservation and management plans. These have principally taken place in the North West, and Daniel has a particular interest in the archaeology of the area. He has recently managed a number of similar archaeological excavation projects in the region including evaluation and excavation at the former Lowwood Gunpowder Works in Haverthwaite (Greenlane Archaeology 2010; 2011a), evaluation at Salthouse Farm, Millom (Greenlane Archaeology 2011b), and evaluation in Cartmel (Greenlane Archaeology 2011c), as well as several more projects over the last six years ranging from large excavations, to building recordings, surveys and desk-based assessments.

1.3.2 All artefacts will be processed by Greenlane Archaeology, and it is envisaged that they will initially be assessed by Jo Dawson, who will fully assess any of post-medieval date; medieval pottery will be assessed by Tom Mace. Finds of earlier date will be assessed by specialist sub-contractors as appropriate. The Cumbria County Council Historic Environment Service (CCCHES) will be notified of any other specialists, other than those named, who Greenlane Archaeology wishes to engage, before any specialist contracts are awarded, and the approval of the (CCCHES) will be sought.

1.3.3 Environmental samples, and faunal or human remains will be processed by Greenlane Archaeology. It is envisaged that any environmental samples would be assessed by staff at Headland Archaeology, Roman pottery by Ruth Leary, and animal bones by Jane Richardson at ASWYAS. Other remains, such as industrial material, will be assessed by specialist sub-contractors as appropriate and the CCCHES will be informed and their approval will be sought for these arrangements.

## 2. Objectives

### 2.1 Archaeological Evaluation

2.1.1 To excavate evaluation trenches totalling 385m<sup>2</sup> (5% of the total of the proposed development area, 7700m<sup>2</sup>) depending on the nature of any on site constraints. This will assess the presence or absence of features of archaeological interest within the area, their extent, date, nature, and significance.



## 2.2 Report

2.2.1 To produce a report detailing the results of the evaluation, that will present the results, and assess the potential of the site and significance of the remains.

## 2.3 Archive

2.3.1 Produce a full archive of the results of the evaluation.

# 3. Methodology

## 3.1 Archaeological Evaluation

3.1.1 A brief site visit will be carried out prior to the evaluation, primarily to ascertain whether there are any constraints to the evaluation, in particular issues of health and safety and access.

3.1.2 Evaluation trenching amounting to 385m<sup>2</sup> will be excavated, and it is envisaged that this will comprise 10 trenches each slightly more than c22m in length and 1.7m wide (a standard excavator bucket width) depending on the topography and any constraints, targeted on the features of interest revealed during the desk-based assessment, as agreed with the CCCHES. These will be excavated until significant archaeological deposits or the natural geology are reached, or to a depth of 1.2m. The trenches will be positioned to target the features of possible archaeological interest recorded during the desk-based assessment. It is anticipated that the evaluation will take two days on site with two archaeologists (totalling four person days).

3.1.3 The evaluation methodology, which is based on Greenlane Archaeology's excavation manual (Greenlane Archaeology 2007c), will be as follows:

- Each trench will be excavated with regard to the position of any known constraints, focussing on the areas of high archaeological interest or potential, and avoiding areas which are likely to have been severely damaged or truncated by later activity, unless they are considered to have a high potential;
- The overburden (which is likely to largely comprise topsoil) will be removed by machine under the supervision of an archaeologist until the first deposit beneath it is reached;
- All deposits below the overburden will be examined by hand in a stratigraphic manner, using shovels, mattocks, or trowels as appropriate for the scale. Deposits will only be sampled, rather than completely removed, below the first identified level of archaeological interest, unless specified by the CCCHES, with the intension of preserving as much *in situ* as possible;
- The position of any features, such as ditches, pits, or walls, will be recorded and where necessary these will be investigated in order to establish their full extent, date, and relationship to any other features. Negative features such as ditches or pits will be examined by sample excavation, typically half of a pit or similar feature and approximately 10% of a linear feature;
- All recording of features will include hand-drawn plans and sections, typically at a scale of 1:20 and 1:10, respectively, and photographs in both 35mm colour print and colour digital format;
- All deposits, trenches, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets;
- All finds will be recovered during the evaluation for further assessment as far as is practically and safely possible. Should significant quantities of finds be encountered an appropriate sampling strategy will be devised;
- All faunal remains will also be recovered by hand during the evaluation, but where it is considered likely that there is potential for the bones of fish or small mammals to be present appropriate volumes of samples will be taken for sieving;
- Deposits that are considered likely to have, for example, preserved environmental remains, industrial residues, and/or material suitable for scientific dating will be sampled. Bulk samples of

between 20 and 60 litres in volume (or 100% of smaller features), depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (e.g. gullies, pits and ditches) and occupation deposits such as hearths and floors. An assessment of the environmental potential of the site will be undertaken through the examination of samples of suitable deposits by specialist sub-contractors (see *Section 1.3.3* above), who will examine the potential for further analysis. All samples will be processed using methods appropriate to the preservation conditions and the remains present;

- Any human remains discovered during the evaluation will be left *in situ*, and, if possible, covered. The CCCHES will be immediately informed as will the local coroner. Should it be considered necessary to remove the remains this will require a Home Office licence, under Section 25 of the Burial Act of 1857, which will be applied for should the need arise;
- Any objects defined as 'treasure' by the Treasure Act of 1996 (HMSO 1996) will be immediately reported to the local coroner and securely stored off-site, or covered and protected on site if immediate removal is not possible;
- Each evaluation trench will be backfilled following excavation although it is not envisaged that any further reinstatement to its original condition will be carried out.

3.1.4 Should any significant archaeological deposits be encountered during the evaluation these will immediately be brought to the attention of the CCCHES so that the need for further work can be confirmed. Any additional work will be carried out following discussion with the CCCHES and subject to a new project design, and the ensuing costs will be agreed with the client.

## 3.2 Report

3.2.1 The results of the evaluation will be compiled into a report, which will include the following sections:

- A front cover including the appropriate national grid reference (NGR) and planning application number;
- A concise non-technical summary of results, including the date the project was undertaken and by whom;
- Acknowledgements;
- Project Background;
- Methodology, including a description of the work undertaken;
- Results of the evaluation, incorporating the results of the desk-based assessment, including descriptions of any deposits identified, their extent, form, and potential date, and an assessment of any finds or environmental remains recovered during the evaluation;
- Discussion of the results including an assessment of the significance of any archaeological remains present within the study area, and areas of further archaeological potential. Any recommendations for further work, and appropriate types of further work, will be provided separately;
- Bibliography, including both primary and secondary sources;
- Illustrations at appropriate scales including:
  - a site location plan related to the national grid;
  - copies of early maps, plans, drawings, photographs and other illustrations of elements of the site collected as part of the desk-based assessment as appropriate to aid the understanding of the results of the evaluation;
  - a plan showing the location of the evaluation trenches in relation to nearby structures and the local landscape;

- plans and sections of the evaluation trenches showing any features of archaeological interest;
- photographs of the evaluation, including both detailed and general shots of features of archaeological interest and the trench;
- illustrations of individual artefacts as appropriate.

### 3.3 Archive

3.3.1 The archive, comprising the drawn, written, and photographic record of the evaluation, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the Cumbria Archive Centre in Kendal (CAC(K)). The archive will be compiled according to the standards and guidelines of the IfA (Brown 2007), and in accordance with English Heritage guidelines (English Heritage 1991). In addition details of the project will be submitted to the Online AccesS to the Index of archaeological investigationS (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public.

3.4.2 A copy of the report will be deposited with the archive at the Cumbria Archive Centre in Kendal, one will be supplied to the client, and within two months of the completion of fieldwork, one paper and one digital copy will be provided for CCCHES. In addition, Greenlane Archaeology will retain one copy, and a digital copy will be deposited with the OASIS scheme as required.

3.4.3 The client will be encouraged to transfer ownership of the finds to a suitable museum. Any finds recovered during the evaluation will be offered to an appropriate museum, most likely Kendal Museum. If no suitable repository can be found the finds may have to be discarded, and in this case as full a record as possible would be made of them beforehand.

## 4. Work timetable

4.1 Greenlane Archaeology will be available to commence the project from the **20<sup>th</sup> April 2015**, or at another date convenient to the client. The project will comprise the following tasks:

- **Task 1:** archaeological evaluation;
- **Task 2:** post-excavation work on archaeological evaluation, including processing of finds and production of draft report and illustrations;
- **Task 3:** feedback, editing and production of final report and archive.

## 5. Other matters

### 5.1 Access

5.1.1 Access to the site for the evaluation will be organised through co-ordination with the client and/or their agent(s).

### 5.2 Health and Safety

5.2.1 Greenlane Archaeology carries out risk assessments for all of its projects and abides by its internal health and safety policy and relevant legislation. Health and safety is always the foremost consideration in any decision-making process.

### 5.3 Insurance

5.3.1 Greenlane Archaeology has professional indemnity insurance to the value of **£1,000,000**. Details of this can be supplied if requested.

### 5.4 Environmental and Ethical Policy

5.4.1 Greenlane Archaeology has a strong commitment to environmentally and ethically sound working practices. Its office is supplied with 100% renewable energy by Good Energy, uses ethical telephone and

internet services supplied by the Phone Co-op, is even decorated with organic paint, and has floors finished with recycled vinyl tiles. In addition, the company uses the services of The Co-operative Bank for ethical banking, Naturesave for environmentally-conscious insurance, and utilises public transport wherever possible. Greenlane Archaeology is also committed to using local businesses for services and materials, thus benefiting the local economy, reducing unnecessary transportation, and improving the sustainability of small and rural businesses.

## 6. Bibliography

Brown, DH, 2007 *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer, and Curation*, Institute for Archaeologists (IfA), Reading

English Heritage, 1991 *The Management of Archaeological Projects*, 2<sup>nd</sup> edn, London

Greenlane Archaeology, 2007c *Archaeological Excavation Manual*, unpubl rep

Greenlane Archaeology, 2010 *Lowwood Gunpowder Works, Haverthwaite, Cumbria: Archaeological Evaluation*, unpubl rep

Greenlane Archaeology, 2011a *Lowwood Gunpowder Works, Haverthwaite, Cumbria: Archaeological Excavation and Watching Brief*, unpubl rep

Greenlane Archaeology, 2011b *Salthouse Farm, Millom, Cumbria: Archaeological Evaluation*, unpubl rep

Greenlane Archaeology, 2011c *Fairfield, Cartmel, Cumbria: Archaeological Evaluation*, unpubl rep

Greenlane Archaeology, 2014 *Land at Jack Hill, Allithwaite, Grange-over-Sands,, Cumbria: Archaeological Desk-Based Assessment*, unpubl rep

HMSO, 1996 *Treasure Act*, <http://www.opsi.gov.uk/acts/acts1996/1996024.htm>

## Appendix 2: Summary Context List

Context	Type	Description	Interpretation
100	Deposit	Greyish orange soft silty clay, 0.1-0.2m thick	Topsoil
101	Deposit	Mid greyish orange firm silty clay, 0.1m thick	Subsoil
102	Deposit	Mid brown firm sandy clay	Fill of pit [103]
103	Cut	Essentially circular in plan, 0.3m diameter and 0.05m deep, shallow slope to sides and flat base	Cut for pit for <b>Cremation 1</b>
104	Deposit	Dark greyish-brown soft silty clay with 1% sub-angular pebbles	Fill of pit [105]
105	Cut	Essentially circular in plan, 0.5m diameter, sides at 45° and flat base	Cut for pit for <b>Cremation 2</b>
106	Deposit	Mid to dark brown firm silty clay with 1% angular stones	Fill of pit [107]
107	Cut	Essentially circular in plan, 0.5m diameter, 0.15m deep with sides at 45° and a flat base	Cut for pit for <b>Cremation 3</b>
108	Deposit	Mid-brownish orange firm sandy clay with 10% rounded gravel	Natural
110	Deposit	Mid-orange brown firm sandy clay with 1% rounded and sub-angular pebbles	Fill of pit [111]
111	Cu	Essentially circular in plan, 0.4m diameter, 0.15m deep with sides at less than 45° but poorly defined and irregular base	Cut for pit for <b>Cremation 11</b>
112	Deposit	Mottled dark greyish-brown and mid brown soft silty clay with 1% rounded gravel	Fill of pit [113]
113	Cut	Essentially circular in plan, 0.35m diameter, 0.4m deep with near vertical sides and a rounded base	Cut for pit for <b>Cremation 8</b>
114	Deposit	Dark brown soft sandy clay	Fill of pit [115]
115	Cut	Essentially circular in plan, 0.18m diameter, 0.05m deep, with sides at 45° and a flat base	Cut for pit for <b>Cremation 10</b>
116	Deposit	Dark brown soft sandy clay with 1% sub-angular pebbles	Fill of pit [117]
117	Cut	Oval in plan, orientated north-west/south-east, 0.4m long by 0.3m wide and 0.4m deep with near vertical sides and a flat base	Cut for pit for <b>Cremation 9</b>
118	Deposit	Mottled mid brown and dark grey firm silty clay with 1% rounded gravel	Fill of pit [119]
119	Cut	Essentially circular in plan, 0.5m diameter, 0.3m deep, with sides greater than 45° and a flattish base	Cut for pit for <b>Cremation 7</b>
120	Deposit	Mid brown soft silty clay with 1% rounded gravel	Fill of pit [121]
121	Cut	Essentially circular in plan, 0.35m diameter, 0.25m deep with vertical sides and a flat base	Cut for pit for <b>Cremation 4</b>
122	Deposit	Mid brown soft silty clay with 1% rounded gravel	Fill of pit [123]
123	Cut	Essentially circular in plan, 0.35m diameter, 0.15m deep, with sides greater than 45° and a rounded bowl-shaped base	Cut for pit for <b>Cremation 6</b>
124	Deposit	Mid brown soft silty clay with 1% rounded gravel	Fill of pit [125]
125	Cut	Essentially circular in plan, 0.3m diameter, 0.3m deep, near vertical sides and a flattish base	Cut for pit for <b>Cremation 5</b>
200	Deposit	Dark greyish-brown soft silty clay, 0.1-0.2m thick	Topsoil
201	Deposit	Mid-greyish-orange firm silty clay, 0.1m thick	Subsoil
202	Deposit	Mid-orange clay, with 5% rounded pebbles and gravel	Natural
300	Deposit	Mid-greyish-orange soft silty clay, 0.1-0.2m thick	Topsoil
301	Deposit	Mid-brownish orange soft silty clay, with 1% rounded pebbles, 0.1m thick	Subsoil
302	Deposit	Mid brownish-orange firm sandy clay, with 5% rounded pebbles and gravel	Natural
400	Deposit	Mid-greyish orange soft silty clay, 0.1-0.3m thick	Topsoil

<b>Context</b>	<b>Type</b>	<b>Description</b>	<b>Interpretation</b>
401	Deposit	Mid-orangey-brown soft silty clay with 1% rounded pebbles, 0.1m thick	Subsoil
402	Deposit	Firm mid-orange-yellow clay, with 5% rounded pebbles and gravel	Natural
500	Deposit	Mid greyish-brown soft silty clay, 0.1-0.2m thick	Topsoil
501	Deposit	Mid-orange brown soft silty clay, with 1% rounded gravel, 0.1m thick	Subsoil
502	Deposit	Firm mid-orange sandy clay, with 5% rounded gravel	Natural
600	Deposit	Mid-grey brown soft silty clay, 0.2m thick	Topsoil
601	Deposit	Mid-greyish orange soft silty clay, 0.1m thick	Subsoil
602	Deposit	Firm mid-orange sandy clay, mottled with more clayey yellow patches, with 1% rounded cobbles and 20% rounded gravel	Natural
700	Deposit	Mid-greyish brown soft silty clay, 0.15-0.2m thick	Topsoil
701	Deposit	Mid-greyish orange soft silty clay, 0.1m thick	Subsoil
702	Deposit	Firm mottled yellowish and orange sandy clay, 1% rounded cobbles and 15% rounded gravel	Natural
800	Deposit	Mid-greyish brown soft silty clay, 0.1m thick	Topsoil
801	Deposit	Mid-orange brown soft silty clay, with 1% rounded gravel	Subsoil
802	Deposit	Mottled yellow and orange-brown firm sandy clay, with 1% rounded cobbles and 10% rounded gravel	Natural
900	Deposit	Mid-greyish-brown soft silty clay, 0.2m thick	Topsoil
901	Deposit	Mid-orangey brown soft silty clay, with 1% rounded gravel, 0.1m thick	Subsoil
902	Deposit	Firm mid-orange sandy clay, with 1% rounded cobbles and 10% rounded gravel	Natural
1000	Deposit	Mid-grey brown soft silty clay, 0.2m thick	Topsoil
1001	Deposit	Mid-orange-brown soft silty clay, 0.1m thick	Subsoil
1002	Deposit	Firm mid-orange sandy clay, with 1% rounded cobbles and 10% rounded gravel	Natural

## Appendix 3: Summary Finds List

Context	Type	Qty	Description	Date range
100	Pottery	1	Black-glazed red earthenware coarseware base fragment	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
100	Pottery	1	Glazed white slip-coated orange coarse earthenware base fragment with brown speckles in glaze	Late 17 <sup>th</sup> – 19 <sup>th</sup> century
100	Pottery	5	White earthenware: two refitting Willow transfer-printed fragments, plain hollow-ware fragment, relief-moulded hollow-ware fragment, and small base fragment	19 <sup>th</sup> – early 20 <sup>th</sup> century
100	Animal bone	1	Small unidentified fragment	Uncertain
200	Pottery	4	Black-glazed red earthenware coarseware pancheon rim fragments (2 refitting), and body fragment	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
200	Pottery	2	Brown-glazed red earthenware coarseware and fineware body fragments	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
200	Pottery	1	Glazed red earthenware coarseware with white slip-coated interior	19 <sup>th</sup> – early 20 <sup>th</sup> century
200	Pottery	1	Dark brown-glazed buff-coloured earthenware coarseware body fragment	Late 17 <sup>th</sup> – 19 <sup>th</sup> century
200	Pottery	1	Black-glazed high-fired red earthenware fineware hollow-ware body fragment, unglazed inside	Late 17 <sup>th</sup> – early 18 <sup>th</sup> century?
200	Pottery	1	Mottledware (?) fineware hollow-ware body fragment	Late 17 <sup>th</sup> – early 18 <sup>th</sup> century?
200	Pottery	2	Red earthenware flower pot fragments	Late 18 <sup>th</sup> – 20 <sup>th</sup> century
200	Pottery	1	Olive-green glazed grey-bodied stoneware hollow-ware fragment, with black substance on breaks	19 <sup>th</sup> – early 20 <sup>th</sup> century
200	Pottery	1	Creamware (?) hollow-ware body fragment	Mid 18 <sup>th</sup> – 19 <sup>th</sup> century
200	Pottery	1	Pearlware (?) hollow-ware body fragment	Late 18 <sup>th</sup> – 19 <sup>th</sup> century
200	Pottery	11	White earthenware: 4 refitting plus one from same vessel fragments from white-on-blue floral transfer-printed hollow-ware rim with relief-moulded dots on rim; 2 refitting Willow transfer-printed plate rim fragments, Willow transfer-printed pie dish rim, green transfer-printed fragment, and two undecorated fragments	19 <sup>th</sup> century
200	Pottery	1	Glazed buff-coloured earthenware fineware (factory-produced)	19 <sup>th</sup> – early 20 <sup>th</sup> century
200	Ceramic	2	Refitting daub lump fragments with voids from organics	Not closely dateable
200	Fe	1	Corroded curved object, probably part of a small horseshoe or clog iron	Post-medieval?
300	Pottery	1	Fragment of a soft (it will mark paper), fairly uniform gritty fabric. The margins are very pale buff, a slightly yellowish white colour, whereas the core is faintly greyer, a light greyish-white, dividing the section roughly into thirds. The inner surface is a light orange colour and what remains of the outer surface is a slightly reddish brown, with some sort of blackish residue attached. The well-sorted small stone inclusions are abundant and include fragments of quartz up to 2mm long. The vessel wall is up to 10mm thick in places.	Mid-11 <sup>th</sup> to 13 <sup>th</sup> century
300	Pottery	1	Brown-glazed grey-bodied stoneware jar fragment with rouletted decoration and olive-green-glazed interior	19 <sup>th</sup> – early 20 <sup>th</sup> century

Context	Type	Qty	Description	Date range
300	Pottery	1	Brown-glazed red earthenware coarseware body fragment	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
300	Pottery	3	White earthenware: 2 saucer base fragments with blue transfer-printed pattern with floral border, Willow transfer-printed vegetable dish (?) rim	19 <sup>th</sup> century
300	Pottery	1	White earthenware saucer base with raised ring for cup to sit in	Late 19 <sup>th</sup> – 20 <sup>th</sup> century
400	Pottery	2	Glazed orange earthenware refitting lid rim fragments	19 <sup>th</sup> century?
400	Pottery	1	White earthenware plate base fragment	19 <sup>th</sup> – early 20 <sup>th</sup> century
500	Pottery	1	Brown-glazed grey-bodied stoneware coarseware jar body fragment	19 <sup>th</sup> century
500	Pottery	1	Brown-glazed grey-bodied stoneware coarseware jar rim fragment with some olive-green glaze as well	19 <sup>th</sup> – early 20 <sup>th</sup> century
500	Pottery	2	Brown-glazed red earthenware coarseware body and base fragments	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
500	Pottery	1	Brown-glazed red earthenware faceted strap handle fragment	Late 17 <sup>th</sup> – 19 <sup>th</sup> century
500	Pottery	4	Red earthenware flower pot fragments, and one probably from black-glazed red earthenware pancheon rim but missing surfaces	Late 18 <sup>th</sup> – 20 <sup>th</sup> century
500	Pottery	3	White earthenware: Asiatic Pheasants transfer-printed flatware rim, ridged jam/marmalade jar base, and factory-produced banded slipware carinated bowl body fragment	19 <sup>th</sup> – early 20 <sup>th</sup> century
500	Pottery	1	Glazed buff-coloured earthenware factory-produced slipware bowl rim fragment	19 <sup>th</sup> – early 20 <sup>th</sup> century
500	Pottery	1	Fine bone china rim – heat affected?	19 <sup>th</sup> – early 20 <sup>th</sup> century
500	Pottery	3	Bone china: Broseley transfer-printed saucer bases x 2, and plain base fragment	19 <sup>th</sup> – 20 <sup>th</sup> century
600	Pb	1	'Doughnut-shaped' object, with bosses on both faces. Evidently cast in a two-part mould as casting lines visible. Superficially appears to be a spindle whorl but the fine finish of the casting, form of decoration, and remains of the iron attaching loop on one side, would suggest it is a relatively modern 'watch lead' type fishing weight (Total Angler 2015)	Post-medieval
600	Fe	1	Corroded large and hand forged bent nail	Post-medieval?
600	Pottery	6	White earthenware: Albion transfer-printed hollow-ware rim, Asiatic Pheasants transfer-printed plate rim, blue patterned hollow-ware fragment, refitting cylindrical vessel base fragments, and plain rim	19 <sup>th</sup> – early 20 <sup>th</sup> century
600	Pottery	1	Bone china body fragment	19 <sup>th</sup> – 20 <sup>th</sup> century
600	Pottery	1	Glazed buff-coloured earthenware factory-produced slipware hollow-ware body fragment	19 <sup>th</sup> – early 20 <sup>th</sup> century
600	Clay tobacco pipe	1	Small (26mm long), plain, stem fragment, with a narrow borehole (5/64" diameter) and slightly oval section (6-8mm wide); worn smooth at breaks	18 <sup>th</sup> – 19 <sup>th</sup> century
700	Pottery	1	Black-glazed red earthenware pancheon base fragment	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
700	Pottery	1	Glazed red earthenware coarseware body fragment with white slip-coated interior	19 <sup>th</sup> – early 20 <sup>th</sup> century
700	Pottery	1	Thin-walled speckled brown-glazed red earthenware body fragment	Late 17 <sup>th</sup> – 19 <sup>th</sup> century
700	Pottery	1	Bone china Broseley transfer-printed saucer (?) body fragment	19 <sup>th</sup> century



Context	Type	Qty	Description	Date range
700	Ceramic building material	1	Red earthenware brick (?) fragment (no surfaces present), heavily abraded	Not closely dateable
700	Clay tobacco pipe	1	Small (21mm long), 6mm diameter, plain, stem fragment, with a narrow borehole (5/64" diameter)	18 <sup>th</sup> – 19 <sup>th</sup> century
800	Pottery	3	White earthenware, including Broseley transfer-printed saucer rim	19 <sup>th</sup> century
900	Pottery	1	Very small and much abraded fragment of a uniform, soft, light orange (oxidised) sandy fabric; possibly (medieval) sandy ware?	12 <sup>th</sup> – 14 <sup>th</sup> century?
900	Pottery	1	(Black-glazed?) red earthenware pancheon rim with inner surface missing	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
900	Pottery	2	Brown-glazed red earthenware: small bowl rim with white slip on rim, and thin-walled body fragment with white slip band	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
900	Pottery	5	White earthenware: 2 refitting mug/jug base fragments with red transfer-printed sheet pattern, factory-produced slipware bowl rim, Cornishware hollow-ware rim, and Broseley transfer-printed plate/saucer rim	19 <sup>th</sup> – early 20 <sup>th</sup> century
900	Pottery	3	Bone china: purple transfer-printed base fragment similar to Fibre but with leaves and flowers, and refitting saucer rim fragments with enamelled painted decoration	19 <sup>th</sup> – early 20 <sup>th</sup> century
900	Ceramic building material	1	Red earthenware brick fragment	Not closely dateable
900	Clay tobacco pipe	1	Small (33mm long), 6mm diameter, plain, stem fragment, with a narrow borehole (4/64" diameter)	18 <sup>th</sup> – 19 <sup>th</sup> century
900	Glass	1	Very light turquoise bottle fragment	19 <sup>th</sup> century
900	Fe	1	Corroded hand-forged nail	Not closely dateable
900	Fe alloy	1	Thin corroded nail with flat head	19 <sup>th</sup> – 20 <sup>th</sup> century
900	Animal bone	1	Small unidentified fragment	Uncertain
1000	Fe	5	Corroded nail and corroded broken curved sheet fragments	Not closely dateable
1000	Pottery/ Ceramic	3	Three very small and much abraded fragments of fired clay or possibly medieval sandy ware; 2x fragments of a uniform, soft, light orange (oxidised) sandy fabric (similar to that from context 900) and one slightly paler, light whitish orange fragment of a similar soft sandy fabric	12 <sup>th</sup> – 14 <sup>th</sup> century?
1000	Pottery	4	Brown-glazed red earthenware pancheon rim and coarseware body fragments	Late 17 <sup>th</sup> – early 20 <sup>th</sup> century
1000	Pottery	2	Glazed red earthenware coarseware body fragments with white slip-coated interior	19 <sup>th</sup> – early 20 <sup>th</sup> century
1000	Pottery	5	White earthenware plate rim, blue painted bowl (?) body, blue, black, and red painted cup rim, and body fragments	19 <sup>th</sup> – early 20 <sup>th</sup> century
1000	Pottery	1	Bone china cup base	19 <sup>th</sup> century
1000	Pottery	2	Factory-produced glazed buff-coloured earthenware bowl (?) body fragments	19 <sup>th</sup> – early 20 <sup>th</sup> century
1000	Glass	1	Very light turquoise bottle body fragment with embossed mark on side '...HERS / [TRADE MA]RK / [?ULVERST]ON'	19 <sup>th</sup> century
1000	Glass	1	Heat affected green bottle fragment (appears blue and opaque unless held up to light due to heat damage)	19 <sup>th</sup> – 20 <sup>th</sup> century?

<b>Context</b>	<b>Type</b>	<b>Qty</b>	<b>Description</b>	<b>Date range</b>
<b>1000</b>	Clay tobacco pipe	3	1x 41mm long, plain, stem fragment, up to 8mm diameter, with a narrow borehole (5/64" diameter); 1x 26mm long, plain, stem fragment, c7mm diameter, with a narrow borehole (5/64" diameter); 1x bowl/stem junction with short and narrow flat-bottomed spur (4/64" bore diameter)	18 <sup>th</sup> – 19 <sup>th</sup> century
<b>1000</b>	Animal bone	1	Small unidentified fragment	Uncertain

## Appendix 4: Summary Report on Early Bronze Age Pottery

### Introduction

This assemblage comprises the plough-damaged remains a group of Early Bronze Age vessels deposited as funerary and accessory urns. The find represents an important addition to knowledge of prehistoric settlement and burial in western Cumbria, where Early Bronze Age burials are relatively scarce. The pottery was associated with a small group of unaccompanied cremation deposits which appears to have constituted a flat cemetery, a tradition of burial which seems to be a feature of western Cumbria at that period (c.2100 - 1700 BC).

### Discussion

The vessels were found in pits which contained single numbers of vessels (Table 1).

Vessel ref.	Vessel type	comment
1	??Collared Urn	upper part missing
3	Collared Urn	
4	Collared Urn	
5	?Collared Urn	upper part missing
6	??Collared Urn	
8	Accessory vessel	
9	?Collared Urn	upper part missing
10	??Collared Urn	

*Table 1 Vessel types by context. Identification to be confirmed once bandaging removed*

The seven larger vessels may all be Collared Urns (Longworth 1984), as were the urns in a burial group found nearby in Allithwaite in 2001 (Wild 2003). The pottery was current in the period 2100 – 1700 cal BC (Richardson and Vyner 2007, 54; Vyner 2014). Pending conservation of the pottery it has not yet been possible to determine the decorative or manufacturing characteristics of the pottery, although it is likely that the vessels were all made locally. Excavation of the vessel contents may retrieve additional artefacts: a bone toggle and four flint items were recovered from the previously discovered Allithwaite urns. A final vessel is a contracted mouth Accessory Cup, a vessel type largely restricted to northern England (Longworth 1967, fig. 2).

The absence of any ditch encircling the urn group suggests that this was an open cemetery, in north-west England embanked or otherwise enclosed cemeteries appear to have been almost as common as burials beneath mounds (Hodgson and Brennand 2006, 41).

A tradition of open cemeteries in Cumbria appears to have continued into the Middle Bronze Age, as evidenced by a cemetery at Milnthorpe containing three cremation jars of this period, loosely associated with a seemingly somewhat earlier vessel (Vyner 2013), and with little evidence for an overlying mound or encircling ditch.

### Illustration

It is likely that all the vessels will require illustration