

Catlin, Warcop and Wemmergill Landscape Survey Report

North Pennines AONB Partnership

April 2023

Ecus Ltd

Report to: North Pennines AONB Partnership


Report Title: Catlin, Warcop and Wemmergill Landscape Survey

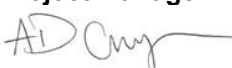
Version: 1

Issue Date: April 2023

Report Ref: 20699

Originated By: **Daniel Elcoat**
Project Archaeologist
Oskar Sveinbjarnarson
Project Supervisor Date: 24/03/2023
Damien Ronan
Project Manager

Reviewed By: 
Damien Ronan
Project Manager Date: 31/03/2023

Approved By: 
Andrew Crowson
Technical Director Date: 03/04/2023

Prepared by:
Marwood House, Harmire Enterprise Park, Barnard Castle, County Durham, DL12 8BN
01833 690 800

Version	Name	Description	Date
0.1	DE,OS,DR	First draft	24/03/2023
0.2	DR	Review	31/03/2023
1	AC	Draft issue for client	03/04/2023

The report and the site assessments carried out by Ecus on behalf of the client in accordance with the agreed terms of contract and/or written agreement form the agreed Services. The Services were performed by Ecus with the skill and care ordinarily exercised by a reasonable Environmental Consultant at the time the Services were performed. Further, and in particular, the Services were performed by Ecus taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between Ecus and the client.

Other than that expressly contained in the paragraph above, Ecus provides no other representation or warranty whether express or implied, in relation to the services.

This report is produced exclusively for the purposes of the client. Ecus is not aware of any interest of or reliance by any party other than the client in or on the services. Unless expressly provided in writing, Ecus does not authorise, consent or condone any party other than the client relying upon the services provided. Any reliance on the services or any part of the services by any party other than the client is made wholly at that party's own and sole risk and Ecus disclaims any liability to such parties.

This report is based on site conditions, regulatory or other legal provisions, technology or economic conditions at the time of the Service provision. These conditions can change with time and reliance on the findings of the Services under changing conditions should be reviewed.

Ecus accepts no responsibility for the accuracy of third party data used in this report.

Contents

EXECUTIVE SUMMARY	IV
1. INTRODUCTION	5
2. LOCATION, TOPOGRAPHY, GEOLOGY	6
2.1 LOCATION.....	6
2.2 TOPOGRAPHY.....	6
2.3 GEOLOGY.....	7
3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	9
3.1 DESIGNATED HERITAGE ASSETS.....	9
3.2 NON-DESIGNATED HERITAGE ASSETS.....	9
4. METHODOLOGY	12
4.1 STANDARDS AND GUIDELINES.....	12
4.2 AIMS AND OBJECTIVES.....	12
4.3 DESK-BASED METHODOLOGY.....	13
4.4 SURVEY METHODOLOGY.....	13
5. RESULTS	14
5.1 FIELD CONDITIONS.....	14
5.2 SURVEY ASSETS.....	14
<i>CATLIN</i>	14
<i>WARCOP</i>	15
<i>WEMMERGILL</i>	16
6. DISCUSSION	18
7. MITIGATION	19
8. ARCHIVE	20
9. REFERENCES	21
APPENDIX 1: GAZETTEER OF ARCHAEOLOGICAL FEATURES	24
APPENDIX 2: DATABASE OF ARCHAEOLOGICAL FEATURES	25
APPENDIX 3: PHOTO ARCHIVE	26

Table 1: Site list.....	5
Table 2: Mitigation buffer types.....	20

Figure 1: Catlin survey areas	
Figure 2: Warcop survey areas	
Figure 3: Wemmergill survey areas	
Figure 4: recorded assets in Catlin areas	
Figure 5: recorded assets in Warcop areas	
Figure 6: recorded assets in Wemmergill areas	
Figure 7: Catlin survey area buffers	
Figure 8: Warcop survey area buffers	
Figure 9: Wemmergill survey area buffers	

Plate 1: Wemmergill Mesolithic microliths	
---	--

Executive Summary

Ecus Ltd carried out a landscape survey in March 2023 at three sites in the North Pennines (North Pennines AONB Partnership project name NED) in advance of peatland restoration works. The survey amounted to an area of c.2,628ha and comprised both desk-based and field elements. Approximately 172 heritage assets were identified of which 42 had previously been recorded within the Cumbria and Co. Durham HERs. The assets ranged in date from the prehistoric to the modern period, mostly falling into the post-medieval period. The assets comprised two flint findspots, four possible prehistoric cairns, two Iron Age enclosures, 72 boundary markers, 20 small enclosures, 13 structures, one lime kiln, 12 sheepfolds, three quarries, 38 mining remains including shafts, adits, structures, spoilheaps, hushes and dams, and five tracks. Few of the assets were within areas designated for intensive work, but a GIS buffer mitigation system was created to help avoid unnecessary activity in the vicinity of the assets.

1. Introduction

- 1.1.1 Ecus Ltd was commissioned by the North Pennines AONB Partnership to undertake a programme of desk- and field-based archaeological survey of three sites (Table 1) in Cumbria and County Durham, as part of a moorland restoration scheme. The survey work was developed in relation to proposals for peatland restoration and rewetting operations including grip blocking, re-profiling and revegetation of bare peat.
- 1.1.2 The survey was designed to provide both a pre-intervention record of archaeological remains in the area and to inform the restoration process, highlighting where damage to archaeological features from ground disturbance and/or access with tracked excavators could be avoided. The survey also provided an opportunity to inspect areas of exposed peat and subsoil for artefacts, ecofacts and palaeoenvironmental potential.

Table 1: Site list

Site name	County	Grid reference	Area (ha)	Restoration proposed	Project name
Catlin	Cumbria	NY676 362	910	Grip blocking. Hagg/gully re-profiling. Installing sediment traps. Cutting heather brash. Accessing the restoration sites.	NED
Wemmergill	Durham	NY815 236	789		
Warcop ³	Cumbria	NY756 252	929		

2. Location, topography, geology

2.1 Location

The three survey locations cover moorland areas within the North Pennines AONB between Penrith and Middleton-in-Teesdale. Two of the areas, Warcop and Wemmergill, are partially within the Warcop MOD firing ranges and were subject to access restrictions.

Catlin

- 2.1.1 Catlin comprises two survey areas amounting to c.910ha within the parishes of Ousby and Culgaith in Cumbria. The areas lie immediately east of Maiden Way with the larger area being crossed by the Pennine Way just north of Cross Fell. The areas cover parts of Ousby and Skirwith Fells, some 8.8km southwest of Alston.

Warcop

- 2.1.2 Warcop consists of eight survey areas covering c.789ha, all situated in Cumbria in the parishes of Murton and Warcop, on Warcop and Murton Fells. The northern extent of the area is defined by Maize Beck, with Murton to the west and Mickle Fell to the east. As a unit, the areas are located c.6.3km north of Brough.

Wemmergill

- 2.1.3 Wemmergill is the only survey area in County Durham, in the parish of Lunedale, and comprises two areas covering c.929ha adjacent to the Warcop survey areas. Both lie to the north of the B6276 road: the main area is situated on the southern slope of Mickle Fell, with the smaller area, Bink Moss, c.1km further east. The area is c.4.3km south of Cow Green Reservoir.

2.2 Topography

Catlin

- 2.2.1 The larger, southern, survey area is situated between Cross Fell to the south and Ousby Fell to the north and covers the ground between Brown Hill to the west and Cash Burn to the east, including parts of Skirwith Fell, Green Fell and the origins of Black Burn. The second, smaller area is situated to the north on the northern slope of Ousby Fell, between Swarth Beck and Black Burn. The area is irregular and comprises hills, plateaus and valleys. The area is clear of woodland and trees. At its highest point, towards the southwest, the survey area is c.790m above Ordnance Datum (AOD), dropping to c.500m AOD in the northeast.

Warcop

- 2.2.2 The Warcop survey comprises eight separate areas of irregular shape and size across c.6km east to west by c.6.5km north to south. The areas generally cover a combination of hilltops, plateaus,

slopes and valleys on Murton Fell, Mickle Fell, Little Fell, Hilton Fell, and Burton Fell. Frequent watercourses cross most of the areas, many feeding Keekham Sike and Maize Beck. The area is generally moorland, devoid of any woodland. At its highest point, the survey area is c.740m AOD, dropping to a low point of c.520m AOD.

Wemmergill

- 2.2.3 The site comprises two areas of irregular shape and size. The largest, western-most area, lies in the southward sloping crescent of Mickle Fell, crossed by numerous watercourses feeding Keekham Beck and Long Sike. The second, smaller area to the east covers Bink Moss Hill (616m), which is crossed by numerous watercourses feeding Wemmergill Beck. The areas have broad sloping topographies with a more severe slope to the immediate south of Mickle Fell. The areas are moorland clear of woodland and trees. At its highest, the survey area is c.740m AOD to the north, dropping to c.540m AOD in the lower portions to the south.

2.3 Geology

Catlin

- 2.3.1 The geology largely comprises the sandstone, limestone, siltstone, and mudstone sedimentary bedrock of the Alston Formation, which formed c.337–328 million years ago (MYA). There are also traces of other Carboniferous geologies including the Scar Limestone Member (330.9–329 MYA), the Four Fathoms Limestone Member (330.9–329 MYA), the Great Limestone Member (329–320 MYA), the Stainmore Formation of sandstone, mudstone, and limestone (329–319 MYA), and the Little Limestone Formation (329–328 MYA). The bedrock geology is especially mixed on the slopes of Cross Fell.

Warcop

- 2.3.2 The geology largely comprises the sandstone, limestone, siltstone, and mudstone sedimentary bedrock of the Alston Formation, which formed c.337–328 MYA. There are smaller pockets of alternative bedrock formations including the Scar Limestone Member (330.9–329 MYA), Three Yard Limestone Member (330.9–329 MYA), Stainmore Formation sandstone (329–319 MYA) and Great Limestone Member (329–328 MYA).

Wemmergill

- 2.3.3 The geology of the main area largely comprises the sandstone, limestone, siltstone, and mudstone sedimentary bedrock of the Alston Formation, which formed c.337–328 MYA. There are also traces of Scar Limestone Formation (330.9–329 MYA). However, the underlying geology of the smaller eastern area consists largely of the Stainmore Formation of mudstone, sandstone and limestone dating from 329–319 MYA. There are also traces of the Great Limestone Member bedrock geology

skirting the south of the area (329–328 MYA).

3. Archaeological and historical background

3.1 Designated heritage assets

- 3.1.1 There are no designated heritage assets within the survey areas, although there are a number in the vicinity, which include examples from the prehistoric, Roman, medieval and post-medieval periods.
- 3.1.2 There are several scheduled prehistoric occupation sites near to the survey areas. To the northeast of the southern-most Warcop survey area are two scheduled monuments: National Heritage List for England (NHLE) numbers 1019049 and 1019050 (both c.2.5km away), which represent the remains of prehistoric hut circle settlements. Additionally, there is the scheduled Trundale Gill prehistoric settlement (NHLE 1018828) c.1km southwest of the Warcop survey area.
- 3.1.3 The Maiden Way Roman road (NHLE 1003053) passes within 50m of the western-most corner of the main Catlin survey area. There are also scheduled sites with Romano-British remains, c.3.25km east of the Wemmergill boundary (NHLE 1019456).
- 3.1.4 Two medieval settlements and evidence of ore mining are part of NHLE 1019453, 2km east of the Wemmergill survey area, along with further medieval settlement remains in NHLE 1019456.
- 3.1.5 A grade II listed medieval shieling is located alongside Black Burn between the two Catlin survey areas.
- 3.1.6 There are numerous post-medieval scheduled monuments in the vicinity. The remains of Cashwell Hush (NHLE 1015838) lie 1km southeast of Catlin. Some 0.44km to the southwest there are the remains of Upper Slatesike lead mine and ore works (NHLE 1015837). One of the most extensive scheduled sites, lying c.0.4km west of the Warcop survey boundary, is the Scordale lead mining complex, covering a number of mines, ancillary structures and remains (NHLE 1018773).

3.2 Non-designated heritage assets

Two Historic Environment Records (HER) were consulted for the work: Cumbria and County Durham. Their records are distinguished by the Durham entries being prefixed with an H.

Prehistoric

- 3.2.1 A possible prehistoric axe (H55209) and a Bronze Age barbed arrowhead (H38688) were found in the vicinity of Mickle Fell, although the arrowhead location is only accurate to 1km and may therefore not have been found within the Wemmergill survey area itself. Another possible prehistoric axe (H38689) was discovered c.0.9km south of the Wemmergill area.
- 3.2.2 The remains of a prehistoric hut circle settlement have been recorded at High Cup Nick (16522),

0.4km northwest of the Warcop survey boundary. Another, at Skirwith Fell (40242) within the southern area of the southern Catlin boundary, was not located by the field survey.

Iron Age/Roman

3.2.3 Approximately 1km southwest of the western-most Warcop survey area lies the Middle Tongue settlement, which is thought to be Iron Age/Romano-British in date (3948).

3.2.4 A heap of iron slag (H484) thought to date to the Iron Age was discovered c.0.9km north-northeast of Bink Fell. A hut circle thought to be Roman in date was discovered c.0.5km northeast of Bink Fell (H38702).

Medieval

3.2.5 A carved stone (see Scordale lead mine HER entry, 44565), thought to be Pictish, was discovered at a crushing mill, about 0.9km southwest of the Warcop survey area.

Post-medieval/modern

3.2.6 The majority of historic remains within and around the three survey locations date to the post-medieval period and are related to the extractive industries and livestock farming, and include mining remains, lime kilns, quarries, and associated trackways.

3.2.7 In the Wemmergill survey area alone there are three hush sites (H4449, H71091, H71096)—hushes utilised channelled water to expose mineral deposits such as lead (Historic England 1999)—and the Mickle Fell lead mine (H4450). In the surrounding area, within 3km of the Wemmergill boundaries, there are five further recorded hush sites and at least nine mines recorded in the County Durham and Cumbria HERs. These include the Close House mine and hush cluster c.1.3km southeast of the main Wemmergill area (H4440–H4442, H4489, H4490). Within the Warcop survey area lies the Mason Holes lead mine (6266) and the nearby Scordale mines, mentioned above. Within Catlin there is the Skirwith Fell lead mine (11349) as well as two other sites associated with mining: Yad Stone mine (8240) and the Corn Rigg mining remains (8294). Within 2km of Catlin there are at least four more sites identified in the Cumbria HER that directly relate to mining activities, including the Fallow Hill lead mine (11481).

3.2.8 The profusion of evidence for mining, particularly lead mining, is not surprising given the broader history of the North Pennines. The region was once a principal source of England's lead and silver, with ores sourced largely from limestone and sandstone (NMRS, no date). According to entries in the Cumbria HER, a number of the mines in the area, including the Scordale mines, appear to have been leased and operated by the London Lead Company. Entries in the County Durham HER suggest that the company may have also been involved with the Keekham Beck (H4449), Close House lead and barytes mine (H4442), and Close House Old Mine (H4441) (NMRS no date;

Historic England 1999).

- 3.2.9 With the exception of Ousby Fell lime kiln (11460), located within the Catlin survey area, there are several other nearby quarries with lime kilns referenced in the Cumbria HER. These include Hartside lime kiln (11732) c.0.68km northwest of Catlin, Thack Moor lime kiln and quarry (11385) c.0.86km southwest of Catlin, Kirkland Fell lime kiln (11734) c.0.99km southwest of Catlin, Ranscleugh Sike quarry and lime kiln (8295) c.0.16km southwest of Catlin, and Green Castle quarry and lime kiln (11389) c.1.04km northeast of Catlin. Collectively, they may provide evidence of interrelated industrial and agricultural operations. The conjunction of these industries has already been noted by Oakey *et al.* (2012, 62), who attest that lime was produced at limestone quarries in Alston Moor through burning on site and was then used to improve the fertility and pH levels of local pastureland. Lime production may have also been motivated/facilitated by local lead mining. Some have suggested that lime kilns may have exploited waste by-products of lead mining (Historic England 2016). Others have recognised that lime kilns could be used to produce quicklime for mine blasting (Historic England 1996). Finally, lime products were also used in the removal of lead impurities during smelting (Harris 1971, 62).
- 3.2.10 The second most common post-medieval features are sheepfolds. One such structure is present within the Catlin survey area—Grey Pot sheepfold (8300)—and a further five are included in the HER within 3km of the Wemmergill survey area. Kings Pot Fold (H71087) is particularly close to the main Wemmergill area, c.2.6m from the north-west boundary, and Horn Fold (H71082) is c.89m from the northern boundary. These demonstrate the increasing use of land for sheep farming across the North Pennine uplands.
- 3.2.11 There are also two recorded air crash sites in the Wemmergill area: a Short Stirling Mark III LK488 (H39237) c.0.4km northeast of Wemmergill is attributed to the Second World War, and a Blenheim MkI L1252/H (H39233) crashed c.1km southeast of Wemmergill during a training flight in 1938 (Clark 2016).

4. Methodology

4.1 Standards and guidelines

4.1.1 All work was undertaken with reference to the following published standards and guidelines of practice:

- *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3*, 2nd edition (Historic England 2017a);
- *Understanding the Archaeology of Landscapes*, 2nd edition (Historic England 2017b);
- *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England 2015a);
- *Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment* (Historic England 2015b);
- *Digital Image Capture and File Storage: Guidelines for Best Practice* (Historic England 2015c)
- *Conservation Principles, Policies and Guidance: for the Sustainable Management of the Historic Environment* (English Heritage 2008);
- *Yorkshire, the Humber & the North East: A Regional Statement of Good Practice for Archaeology in the Development Process* (South Yorkshire Archaeology Service 2019);
- *Code of Conduct: professional ethics in archaeology* (Chartered Institute for Archaeologists 2022);
- *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (Chartered Institute for Archaeologists 2020).

4.2 Aims and objectives

4.2.1 The principal aim of the project was to provide both a pre-intervention record of archaeological remains in the area and to inform the restoration process, highlighting where damage to archaeological features from ground disturbance and/or access with tracked excavators could be avoided. This would be achieved by creating a traffic light GIS management system linked to an Historic England Level 1 record (Historic England 2017b) of any heritage assets that could be affected by the proposed scheme, which could be used to inform management decisions relating to identified archaeological sites in order to mitigate any potential adverse impacts.

4.2.2 An OASIS record will be created and will be finalised following completion of the project. A copy of the approved report and GIS will be submitted to the North Pennines AONB Partnership and the Cumbria and County Durham HERs. Two worked flints were found by the survey, which will be

recorded and returned to the landowners. The digital archive will be submitted to the Archaeology Data Service (ADS) following final report approval.

4.3 Desk-based methodology

- 4.3.1 Prior to the fieldwork, primary and secondary information was sourced from the Cumbria and County Durham HERs and Historic England. In addition, sites were plotted from 19th- and 20th-century Ordnance Survey maps, combined with data gathered from Google Earth historic aerial photographic coverage and Environment Agency LiDAR data. Full LiDAR coverage of the sites was available at 1m resolution and was used in both digital terrain model (DTM) and digital surface model (DSM) forms.
- 4.3.2 All archaeological features identified by the desk-based survey—including recorded, historic and potential unrecorded/newly identified features—were allocated a unique identification number (UIN) and plotted as point, line or polygon data in QGIS. All resulting spatial data has been produced as a series of GIS layers.
- 4.3.3 Relevant elements of this information were uploaded into handheld GPS units in advance of the fieldwork to assist in locating identified features, marking new features, and mapping progress.

4.4 Survey methodology

- 4.4.1 Archaeological fieldwork comprised a Level 1 survey, as defined by Historic England 2017b (9.1). A Level 1 survey is ‘mainly a visual record, supplemented by the minimum of information needed to identify the archaeological site’s location, possible date and type’.
- 4.4.2 Due to time constraints, the fieldwork was limited to visiting poorly defined or unidentifiable potential features noted by the desk-based analysis and by walking a sample of exposed peat and subsoil areas, amounting to c.20% of the total survey area, to identify any visible buried flint scatters and ecofacts. Areas of exposed peat and subsoil outside the 20% sample areas were also scanned *en route*. Any features found were recorded onto digital proforma record sheets, located via handheld GPS and, where informative, photographed. Assets only recorded on historic mapping have been added into the gazetteer as brown category (see mitigation section) unless they were ground truthed; this category largely relates to boundary cairns, curricks and piles of stones. Many more-recent walkers’ cairns were observed during the field survey, which were often physically indistinguishable from historically mapped boundary cairns, curricks and piles of stones, but these were not recorded.

5. Results

5.1 Field conditions

5.1.1 The weather was variable during the fieldwork and ranged from hail and sleet in strong winds through fog to clear skies in light wind. Ground conditions were generally saturated.

5.2 Survey assets

5.2.1 Because of the full coverage with 1m resolution LiDAR, good satellite photos and historic Ordnance Survey mapping, the majority of sites were identified by the desk-based element of the survey. Where these sites were clearly defined and identifiable by type they were given a low priority for a field visit to maximise the use of fieldwork time. Any potential sites of uncertain type or extent were prioritised for ground truthing along with previously identified HER sites.

Catlin

- 5.2.2 The desk- and field-based survey identified 106 heritage assets or asset groups (Fig. 4). Most of the assets relate to mining activities or farming and date from the post-medieval period; site types include cairns, mines and industrial remains, structures, enclosures, sheepfolds, quarries, and tracks.
- 5.2.3 The earliest asset previously recorded in the Cumbria HER (40242) is Skirwith Fell hut circle settlement (C60). The site was identified by the English Heritage Management Protection Programme (MPP) in 2003 as a sub-oval stone-walled enclosure containing a 'couple of huts', but it is unclear if it was located purely via aerial photos or by site inspection. During the current site visit, no evidence for either an enclosure or hut circles was seen at the recorded location, though it is possible the features may exist in the vicinity.
- 5.2.4 The survey identified 31 cairns, which comprise a combination of cairns, curracks and piles of stones marked on First and Second Edition Ordnance Survey maps. Most, if not all them, probably date to the post-medieval period.
- 5.2.5 Twenty-six post-medieval mines were recorded, half of which are recorded in the Cumbria HER. The mines comprise a combination of shaft mounds, levels and associated spoil heaps and infrastructure.
- 5.2.6 The Ousby Fell lime kiln (C68) may relate to the nearby Bullman Cleugh lead mining activities (C69) (Cumbria HER 11460).
- 5.2.7 Two small areas of quarrying were identified: one (C41) probably related to the construction of a nearby boundary wall and the other (C54) to the construction of an adjacent track (C106).

- 5.2.8 The survey identified 17 small probable post-medieval enclosures, two of which (C36, C37) were previously identified in the Cumbria HER (8306, 8307), though these two were not located by the current site visit. These may represent shelters or possibly sheepfolds.
- 5.2.9 Eleven sheepfolds were identified, all probably post-medieval in date. Of these, eight are previously identified features in the Cumbria HER.
- 5.2.10 Ten small probable post-medieval structures were identified, ranging from oval to rectangular in shape. Four of them were previously identified in the Cumbria HER. Their functions are mostly unknown but probably include shepherds' huts, mining buildings and shooting shelters.
- 5.2.11 The survey identified five trackways in the Catlin area, one (C35) extending 245m eastwards from a gate in the current western boundary, and another (C51) extending for c.85m around the south and west sides of structure C50 (HER 8292) to the south of an extensive area of mining remains (C49, HER 11367). Two others are depicted in historical Ordnance Survey maps from 1897 (C104, 105). Thirty-two of the cairns, with the exception of C32, which may be a much earlier cairn with a walkers' cairn on top, were identifiable in Ordnance Survey mapping from 1861. Four of these cairns (C106–109) may also represent boundary stones according to historic maps. None of the identified cairns had been previously recorded in the Cumbria HER.
- 5.2.12 Two further boundary stones were visited during the current survey (C14, C74), both engraved with "C" facing north and "F" facing south, with the second one also having the date 1826 engraved below the F; both are also present in Ordnance Survey maps from 1861 and 1897. Neither of the stones have been previously recorded in the Cumbria HER.
- 5.2.13 Finally, a leat (C25) (an excavated channel used to convey water) was discovered in the Catlin area that was not previously recorded in the Cumbria HER. It is unclear where it terminated.

Warcop

- 5.2.14 The desk- and field-based survey identified nine features or feature groups (Fig. 5). The features range in date from the prehistoric through to post-medieval periods and comprise a series of cairns, earthworks, structures and an extraction site.
- 5.2.15 A large prehistoric cairn (W1) with a superseding modern phase was identified on the western-most edge of the survey area, on the edge of a plateau.
- 5.2.16 Two Iron Age enclosures were identified within the survey area, on the edge of the same upland spur as the prehistoric cairn (W1). W7, comprising two circular enclosures, is located 0.24km northeast of W1 and is recorded as High Cup Scar circular enclosure (45746) in the Cumbria HER. W8, comprising a curvilinear earthen enclosure, is located 0.56km northeast of W1 and is recorded

as High Cup Nick curvilinear enclosure (45754) in the Cumbria HER.

5.2.17 Two cairns of unconfirmed date were discovered, one (W2) in the same north-western boundary as W1, c.1.1km to the northeast, and the other, W3, in the boundary to the immediate south of the northwestern area, c.1.5km southeast of W1. W2 was located next to an old channel and W3 was found in the basin of a mill pond. If situated below the waterline of the mill pond, it may pre-date this post-medieval intervention, but it could also post-date the pond.

5.2.18 The remaining features can be attributed to the post-medieval period and include a dam (W4), mill race (W5), quarry (W6). The mill race lies c.0.11km east of W3 and was already documented in the Cumbria HER (15614). An historic cairn (W9) was identified on historic maps but could not be identified in the field.

Wemmergill

5.2.19 The desk- and field-based survey identified 19 features or feature groups (Fig. 6). The features range in date from the prehistoric through to relatively modern and comprise findspots, mining or mineral extraction sites, structures and cairns.

5.2.20 A Bronze Age barbed arrowhead (Wg17) recorded in the HER (H38688) was found in the vicinity of Mickle Fell, although the arrowhead location is only accurate to 1km and may not therefore have been found within the Wemmergill survey area.

5.2.21 Two pieces of worked flint (Wg16) were recovered from exposed subsoil beneath eroding shallow turf between dam (Wg9) and associated leat (Wg10) at around 700m AOD. The flints are Mesolithic (9600–4300 BC) microliths. They were found within a few metres of each other but with no sign of any associated knapping waste, despite many metres of exposed subsoil, suggesting they might be parts of a composite arrowhead and are therefore likely to represent loss during hunting activity (Plate 1).

5.2.22 Three hushes Wg4, Wg18 and Wg19 (channels left after the release of a body of water to scour-off surface deposits to expose mineral seams below) forming a broken line down the hillslope, and an associated dam (Wg9), are marked on maps of 1854 as 'old hush', implying that they pre-date the map by a number of years. A leat (Wg10) associated with the dam is presumably of a similar date. Another leat (Wg8) further to the south appears to be heading towards a dam at the head of the southern hush (Wg19) but it cannot be seen to directly connect.

5.2.23 Two loosely parallel narrow leats (Wg1, Wg2) can be seen running around the contour immediately south of Mickle Fell. Their destination is unclear, but they run towards a lead level (Wg3) marked on the Ordnance Survey 1854 six-inch map, which survives as a 17m-long linear spoil tip and

possible level entrance.

- 5.2.24 A currack (Wg5) marked on the 1854 six-inch map survives as a pile of large stones at the base of a glacial rock dump.
- 5.2.25 A substantially walled rectangular structure (Wg6), measuring c.4m by 5m, marked on the 1854 six-inch map as 'Old Walls' was recorded 110m to the southeast. Its original purpose is unclear, though it could relate to the nearby hush (Wg18). Another rectangular structure (Wg7) of similar size and also marked on the 1854 map as 'Old Walls' was recorded c.200m to the east, to the north of leat (Wg8). A third structure (Wg11), unlabelled on the 1854 map along with two other curracks (Wg12, Wg13) further to the east were not identified on the ground.
- 5.2.26 Two further curracks (Wg14, Wg15) marked on the 1854 Ordnance Survey six-inch map towards the west end of the survey area were not visited on the ground.

6. Discussion

- 6.1.1 The heritage assets identified represent a typical cross-section of the types of historical features found in the region. There is possibly an underrepresentation of earlier periods, but this may be a reflection of the location and topography of the areas under survey.
- 6.1.2 Due to the compressed timescale of the project and access constraints, not all the areas could be visited on the ground, although full aerial photograph and 1m resolution LiDAR coverage increase the levels of confidence for identification of larger assets within the survey areas.
- 6.1.3 No ecofacts were observed during the survey and the relative lack of identified earlier historic remains means that any palaeoenvironmental work undertaken would need a clearer remit in terms of its intended goals. Because of the nature of the areas targeted for restoration, the peat will have been subject to repeated periods of drying as a result of former drainage and erosion, which may have had a detrimental effect on pollen and ecofact preservation. Cumbria has had a large amount of study into the environmental reconstructions in the Holocene especially within the work of Barber *et al.* (1994a, 1994b, 1998) and Chambers *et al.* (1997), and it could be argued that without specific research questions further paleoenvironmental assessments would be of little benefit.

7. Mitigation

- 7.1.1 By their nature, most historical assets are susceptible to damage. Damage is normally cumulative and mostly irreversible, and generally takes the form of either direct, immediate physical impact or more gradual longer-term impact. The types of immediate damage include excavation, relocation of material, collision, compression, abrasion and water re-routing.
- 7.1.2 The fragility of assets has to be assessed and balanced with the need for progress and changing societal needs, so that any mitigation approach needs to be usable and beneficial without being overly onerous.
- 7.1.3 Based on the types of asset identified during the survey, a buffer zone approach is recommended, with the buffer's colour and size reflecting the assets susceptibility to types of damage.
- 7.1.4 Sites have been divided into four buffer categories relating to their type, quality, importance and fragility, and the types of activity that could safely be undertaken around them.

Table 2: Mitigation buffer types

Colour	Buffer Size	Category	Activities
Red	20m	Assets of high to medium fragility or importance	Should be avoided by all vehicles and activities
Amber	10m	Assets of medium to low fragility or importance	Ideally avoid with heavier vehicles and no ground penetration
Yellow	5m	More robust assets of medium to low importance	Can be tracked over but avoid any ground penetration activities
Brown	5m	Historically documented sites	Be aware of potential in buffer zone and avoid if identified

- 7.1.5 These buffers exist as GIS shapefiles and can be used as navigation/avoidance aids.
- 7.1.6 The extent of the applied buffers is shown on Figures 7, 8 and 9.

8. Archive

8.1.1 The site archive contains all relevant data collected during the investigative work. As part of the consolidation:

- the site record was checked, cross-referenced and indexed as necessary

8.1.2 The archive has been prepared in accordance with national guidelines (Brown 2011; ClfA 2020). Two Mesolithic flints from Wemmergill (Wg16) were returned to the landowners. The digital archive contains data comprising:

- a report synthesising the work
- photographs
- GIS layers

8.1.3 In determining which material will form part of the archive, the ClfA Archive Selection Toolkit has been used (available online at <http://cifa.heritech.net/selection-toolkit>).

8.1.4 The archiving of relevant digital data arising from the project has been undertaken in a manner consistent with professional standards and guidance (Archaeology Data Service/Digital Antiquity 2011; Archaeology Data Service 2020).

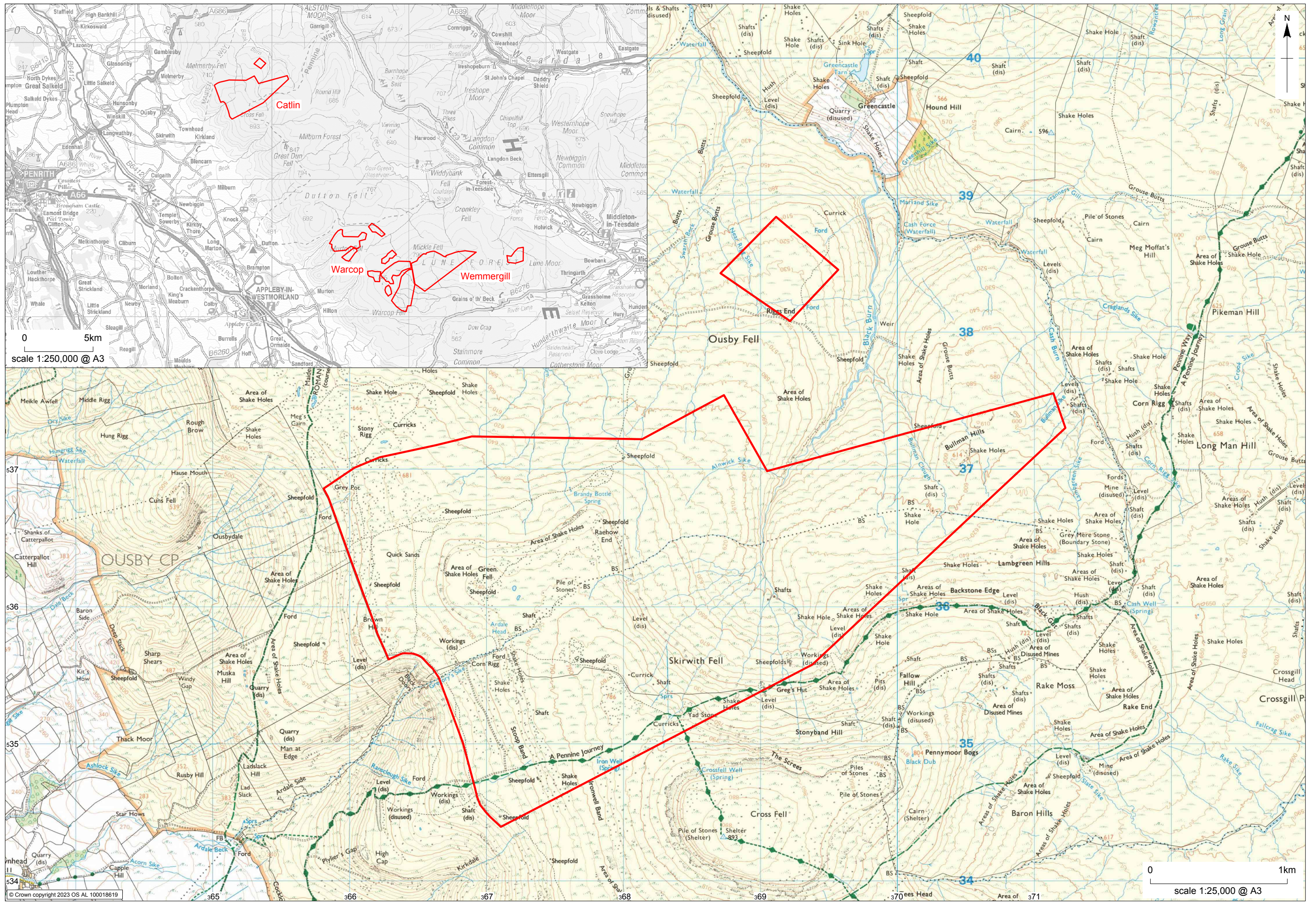
8.1.5 An OASIS form has been compiled for the results of the works: a PDF version of this report will be submitted to the Archaeology Data Service via the OASIS form. The form will be submitted following approval of the report.

9. References

- Archaeology Data Service/Digital Antiquity (2011) *Guides to Good Practice*. York: Archaeology Data Service, University of York, UK.
- Archaeology Data Service (2020) *Guidelines for Depositors: Preparing Datasets (version 4.0)*. [https://archaeologydataservice.ac.uk/advice/PreparingDatasets.xhtml#Data%20Management%20Plans%20\(DMP\)](https://archaeologydataservice.ac.uk/advice/PreparingDatasets.xhtml#Data%20Management%20Plans%20(DMP))
- Barber, K.E. , Chambers, F.M. , Dumayne, L. , Haslam, C.J. , Maddy, D. and Stoneman, R.E. 1994a: Climatic change and human impact in north Cumbria: peat stratigraphy and pollen evidence from Bolton Fell Moss and Walton Moss. In Boardman, J. and Walden, J. , editors, *Cumbria field guide*, Cambridge: Quaternary Research Association.
- Barber, K.E. , Chambers, F.M. , Maddy, D. , Stoneman, R.E. and Brew, J.S. 1994b: A sensitive high-resolution record of late-Holocene climatic change from a raised bog in northern England . *The Holocene* 4, 198–205.
- Barber, K.E. , Dumayne-Peaty, L. , Hughes, P.D.M. , Mauquoy, D. and Scaife, R. 1998: Replicability and variability of the recent macrofossil and proxy-climate record from raised bogs: field stratigraphy and macrofossil data from Bolton Fell Moss and Walton Moss, Cumbria, England . *Journal of Quaternary Science* 13, 515–528.
- Chambers, F.M. , Barber, K.E. , Maddy, D. and Brew, J. 1997: A 5500-year proxy-climate and vegetation record from blanket mire at Talla Moss, Borders, Scotland . *The Holocene* 7, 391–399.
- British Geological Survey (2022) *Geology viewer*. <https://www.bgs.ac.uk/map-viewer/bgs-geology-viewer/>
- Brown, D.H. (2011) *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*. Second Edition. Reading: Institute for Archaeologists, on behalf of the Archaeological Archives Forum (AAF).
- Chartered Institute for Archaeologists (CIfA) (2020) *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*. https://www.archaeologists.net/sites/default/files/CIFAS%26GArchives_4.pdf
- Chartered Institute for Archaeologists (CIfA) (2021) *Code of Conduct: professional ethics in archaeology*. <https://www.archaeologists.net/sites/default/files/Code%20of%20conduct%20revOct2021.pdf>

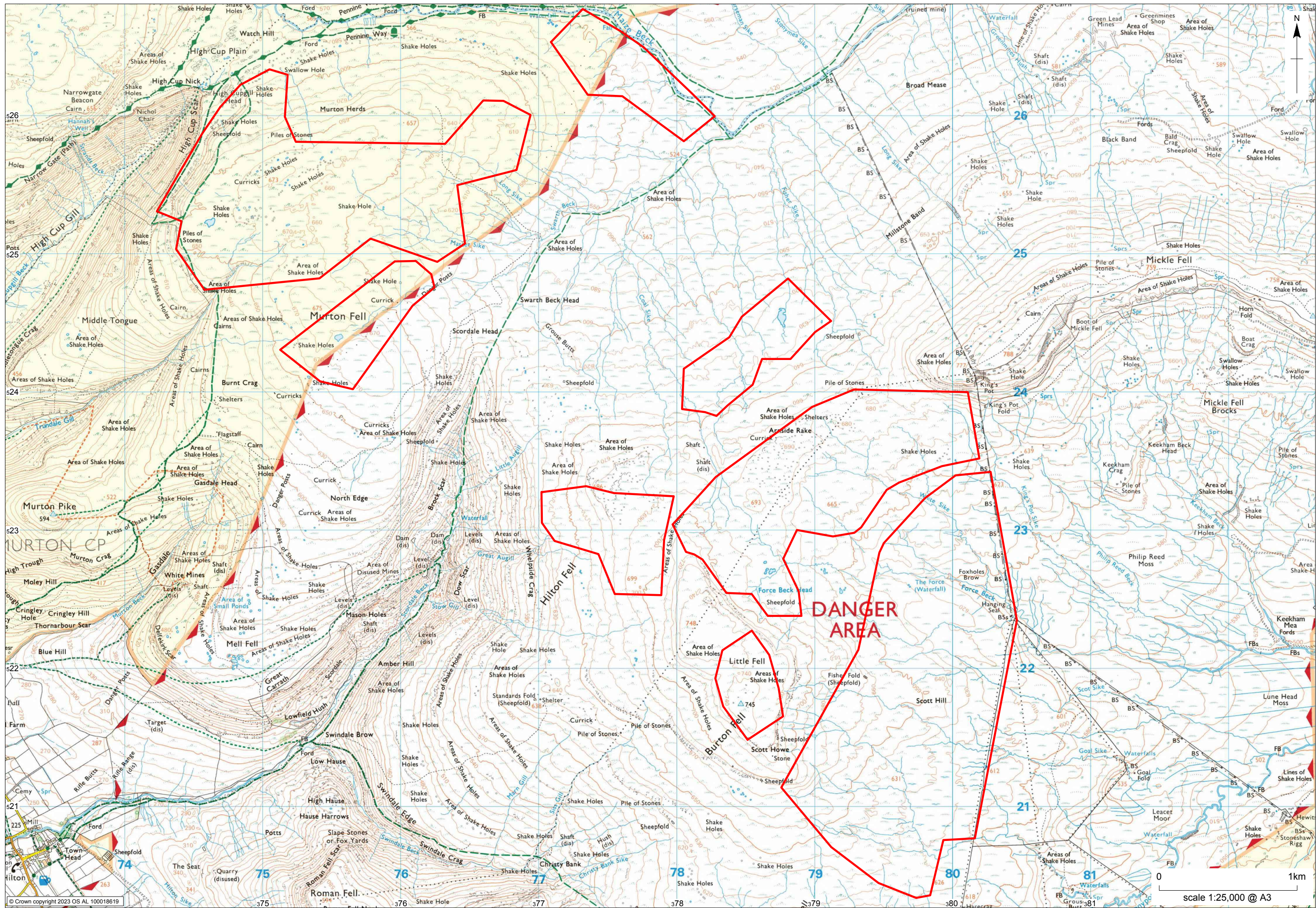
- Clark, A. (2016) Blenheim Mk.I L1252, Peak District Air Accident Research, accessed (30/03/2023), https://www.peakdistrictaircrashes.co.uk/crash_sites/pennines/bristol-blenheim-l1252-hargill-beck/
- Harris, H. (1971) *The industrial archaeology of the Peak District*, Newton Abbot: David & Charles.
- Historic England (1996) *Tideslow Rake lead rake and lime kiln*, accessed (30/03/2023), <https://historicengland.org.uk/listing/the-list/list-entry/1014591?section=official-list-entry>
- Historic England (1999) *Scordale lead mines*, accessed (30/03/2023), <https://historicengland.org.uk/listing/the-list/list-entry/1018773?section=official-list-entry>
- Historic England (2015a) *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide*. Swindon: Historic England.
- Historic England (2015b) *Metric Survey Specifications for Cultural Heritage (3rd Edition)*. Swindon: Historic England.
- Historic England (2015c) *Digital Image Capture and File Storage: Guidelines for Best Practice*. Swindon: Historic England
- Historic England (2016) *Ashnott lead mine and lime kiln*, accessed (30/03/2023), <https://historicengland.org.uk/listing/the-list/list-entry/1016550?section=official-list-entry>
- Historic England (2017a) *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3*, 2nd edition. Swindon: Historic England.
- Historic England (2017b) *Understanding the Archaeology of Landscapes*, 2nd edition. Swindon: Historic England.
- Northern Mine Research Society (NMRS) (No date) *North Pennines*, accessed (30/03/2023), <https://www.nmrs.org.uk/mines-map/metal/north-pennines/>
- Oakey, M., Radford, S. & Knight, D. (2012) *Alston Moor, North Pennines. Miner-Farmer landscapes of the North Pennine AONB NMP. Aerial investigation and mapping report*, English Heritage: Portsmouth.
- Ordnance Survey (1856) Six-inch map sheet Yorkshire Sheet 3 (surveyed 1854)
- Ordnance Survey (1863) Six-inch map sheet Westmorland X (XI) (surveyed 1859).

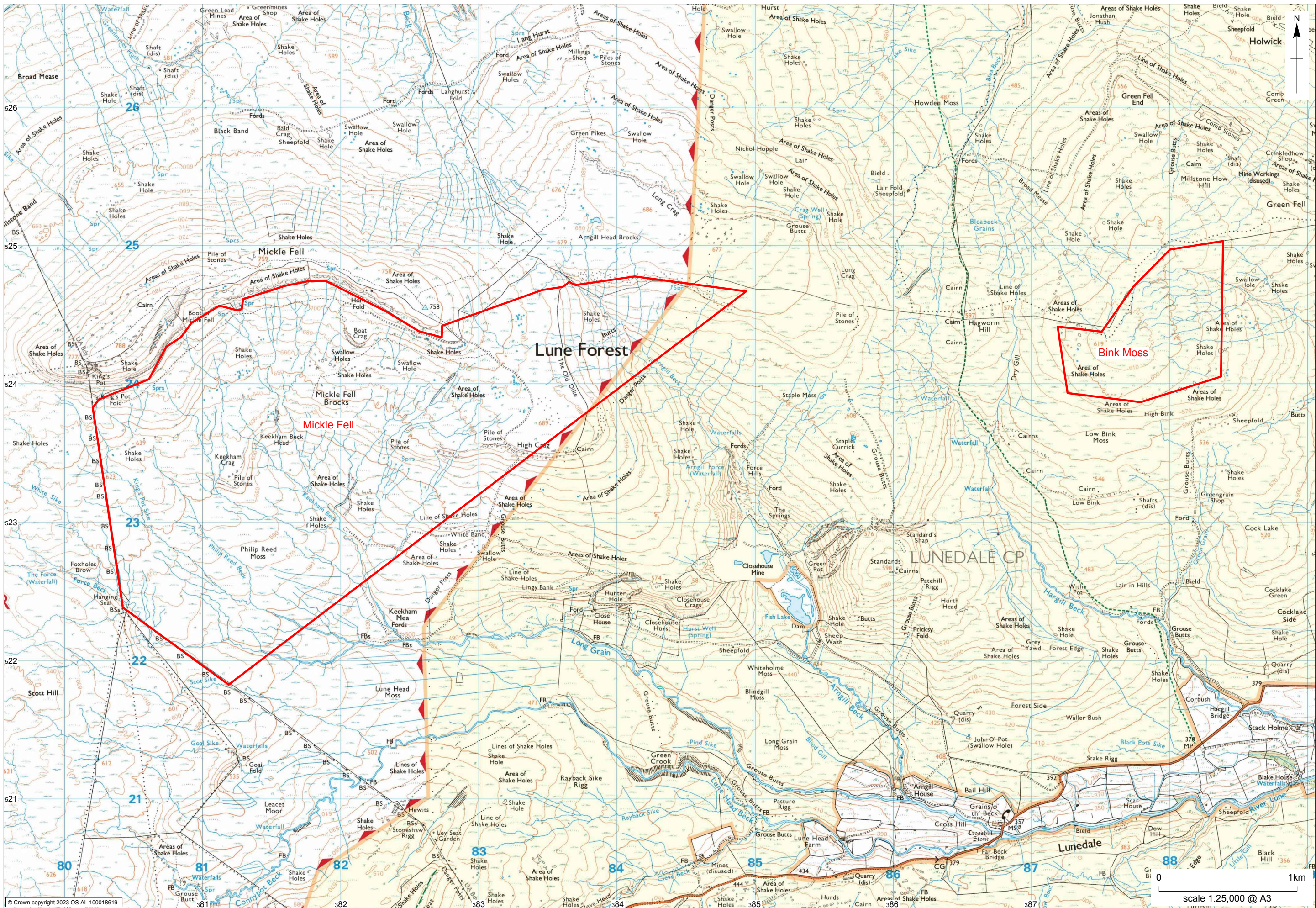
Ordnance Survey (1899) Six-inch map sheet Westmorland (XIX.NE) (revised 1897).

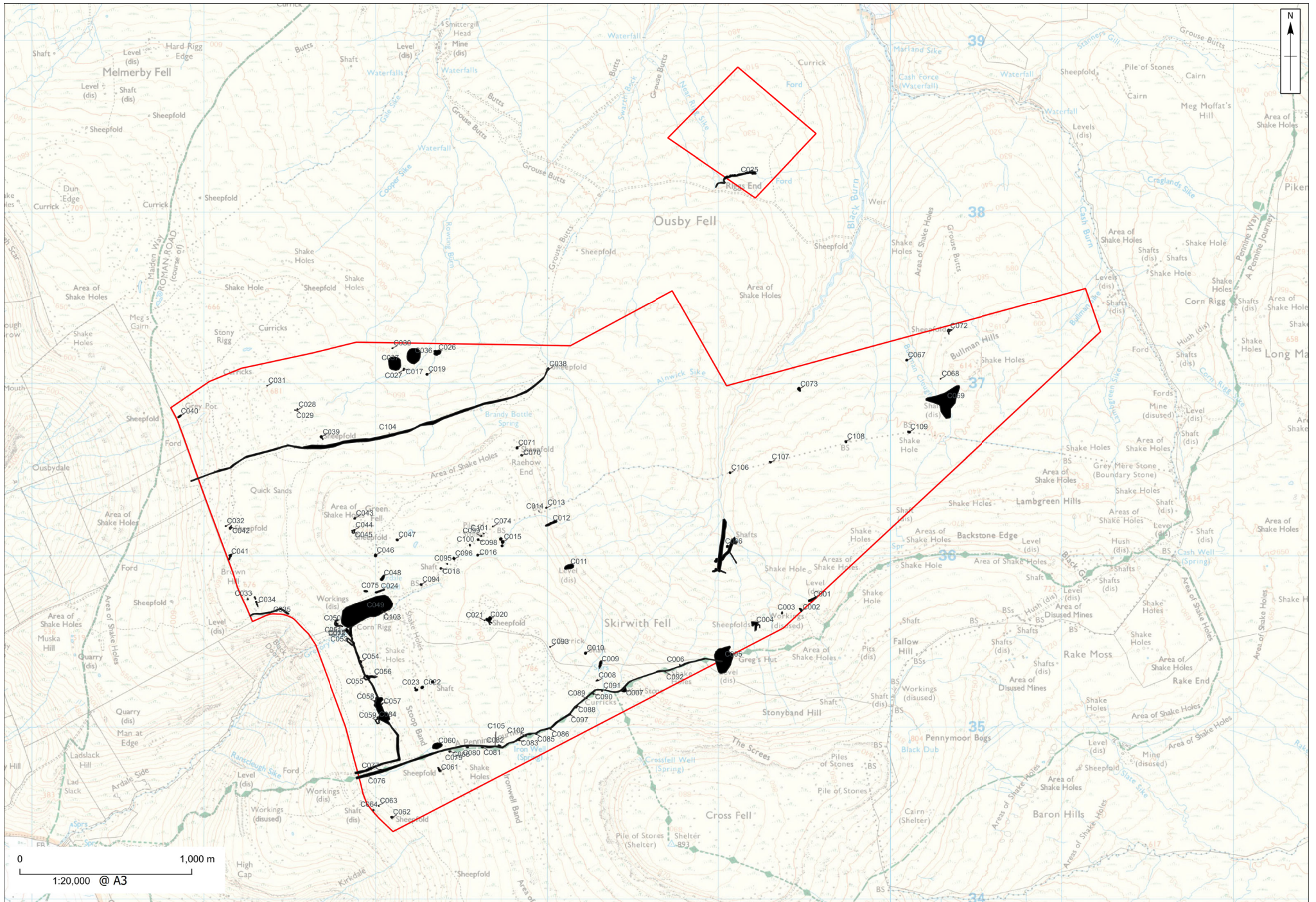


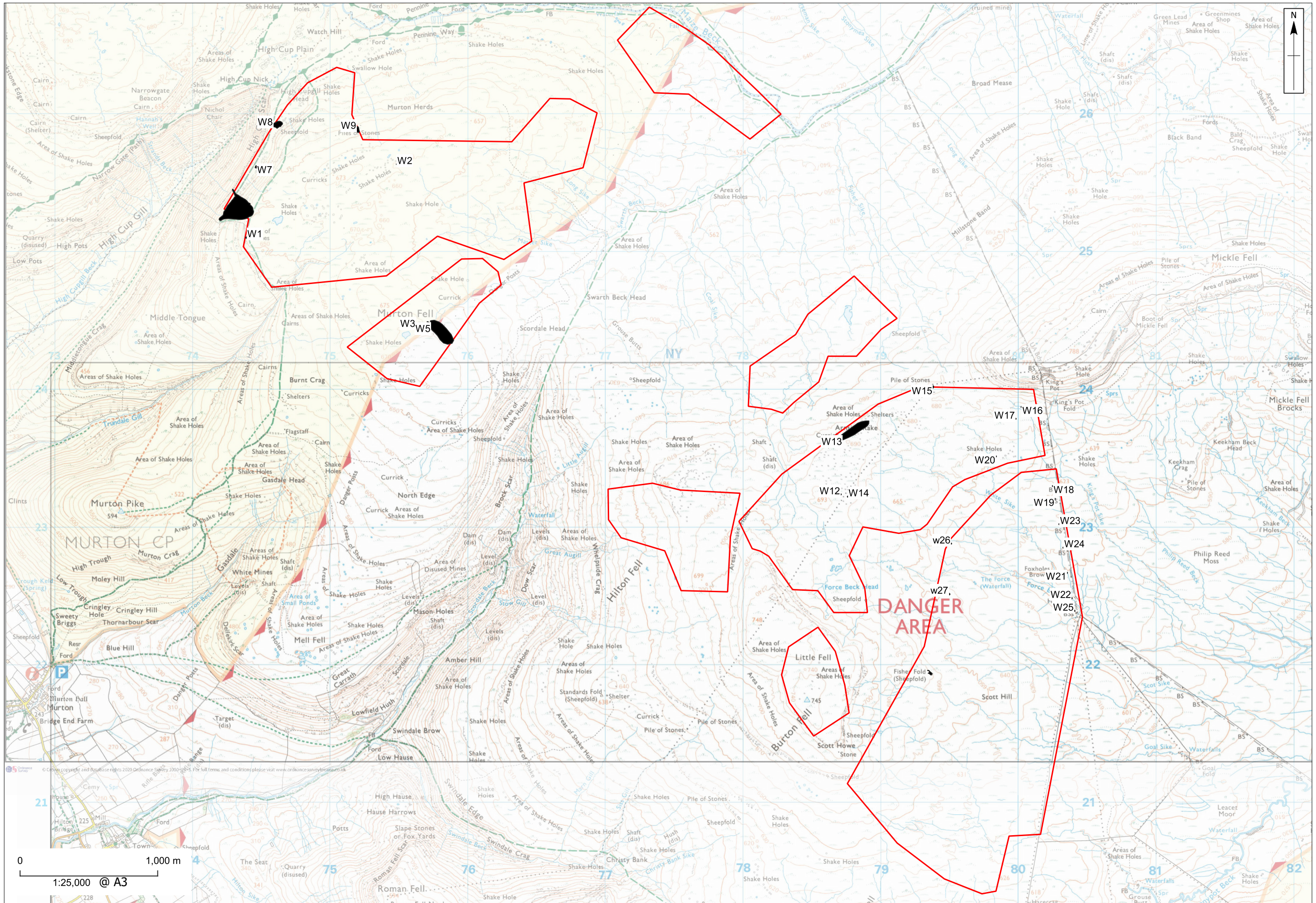
North Pennines AONB Peatland Restoration: site locations (NED) and Catlin survey areas

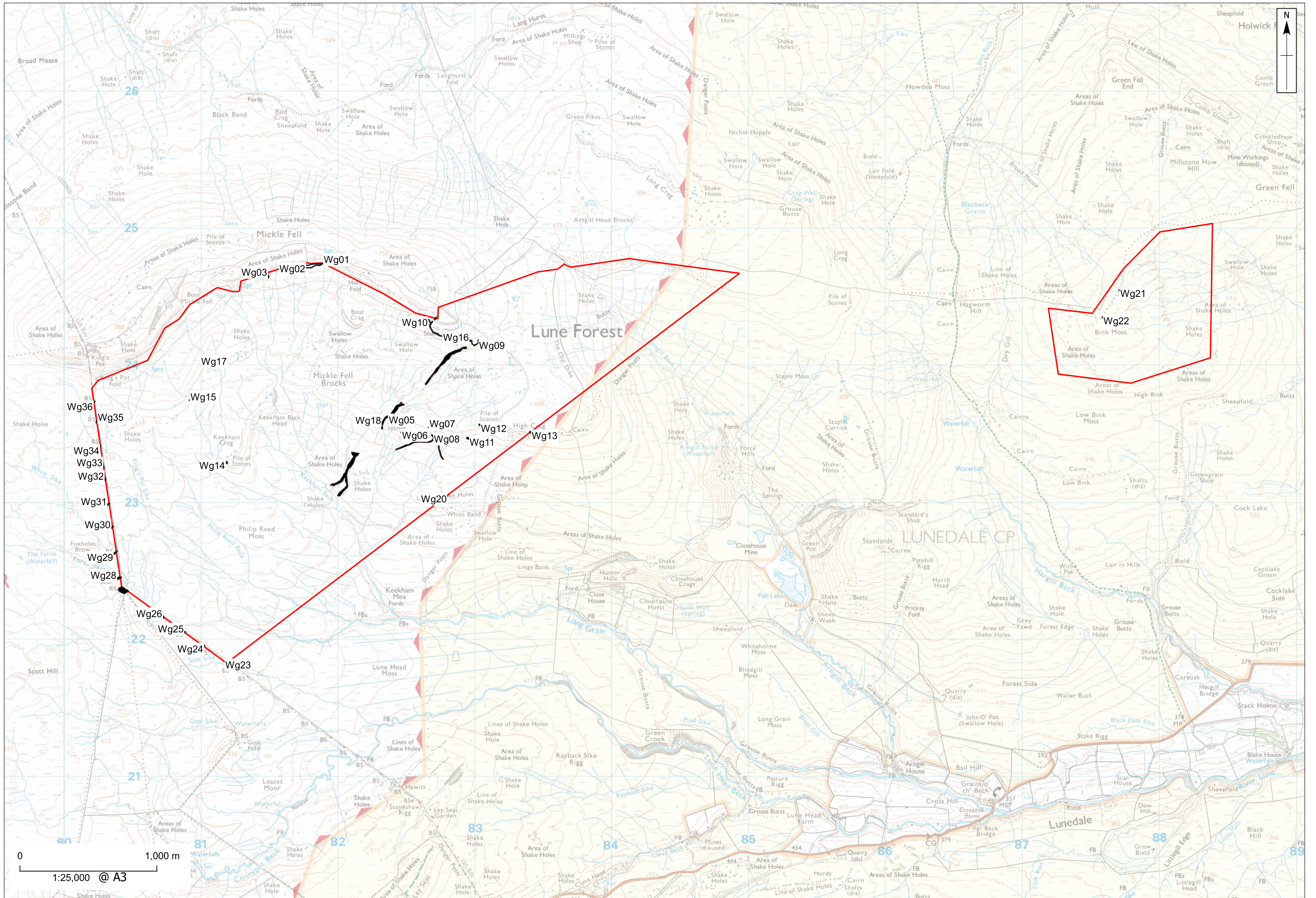
Figure 1

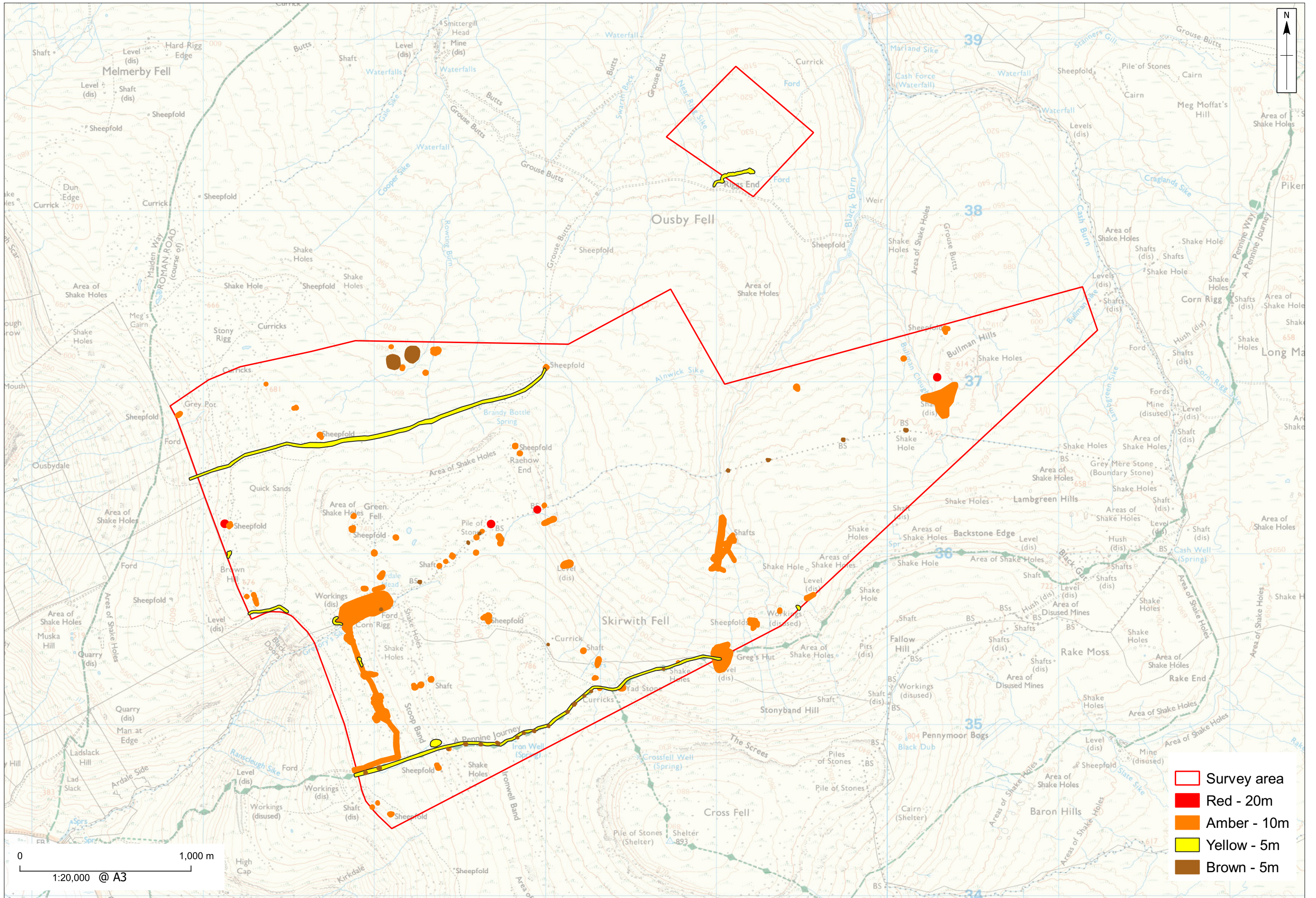


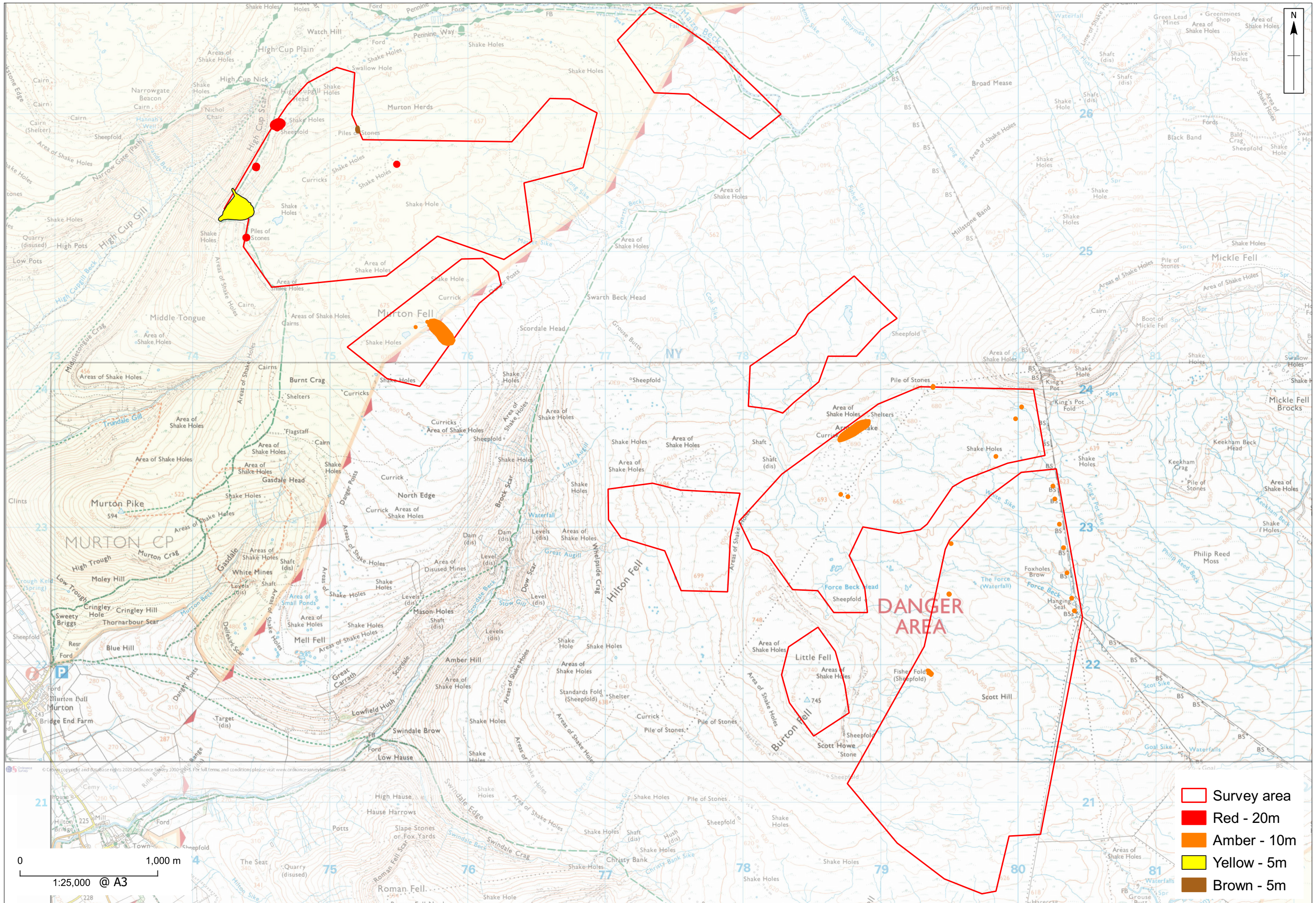












- Survey area
- Red - 20m
- Amber - 10m
- Yellow - 5m
- Brown - 5m

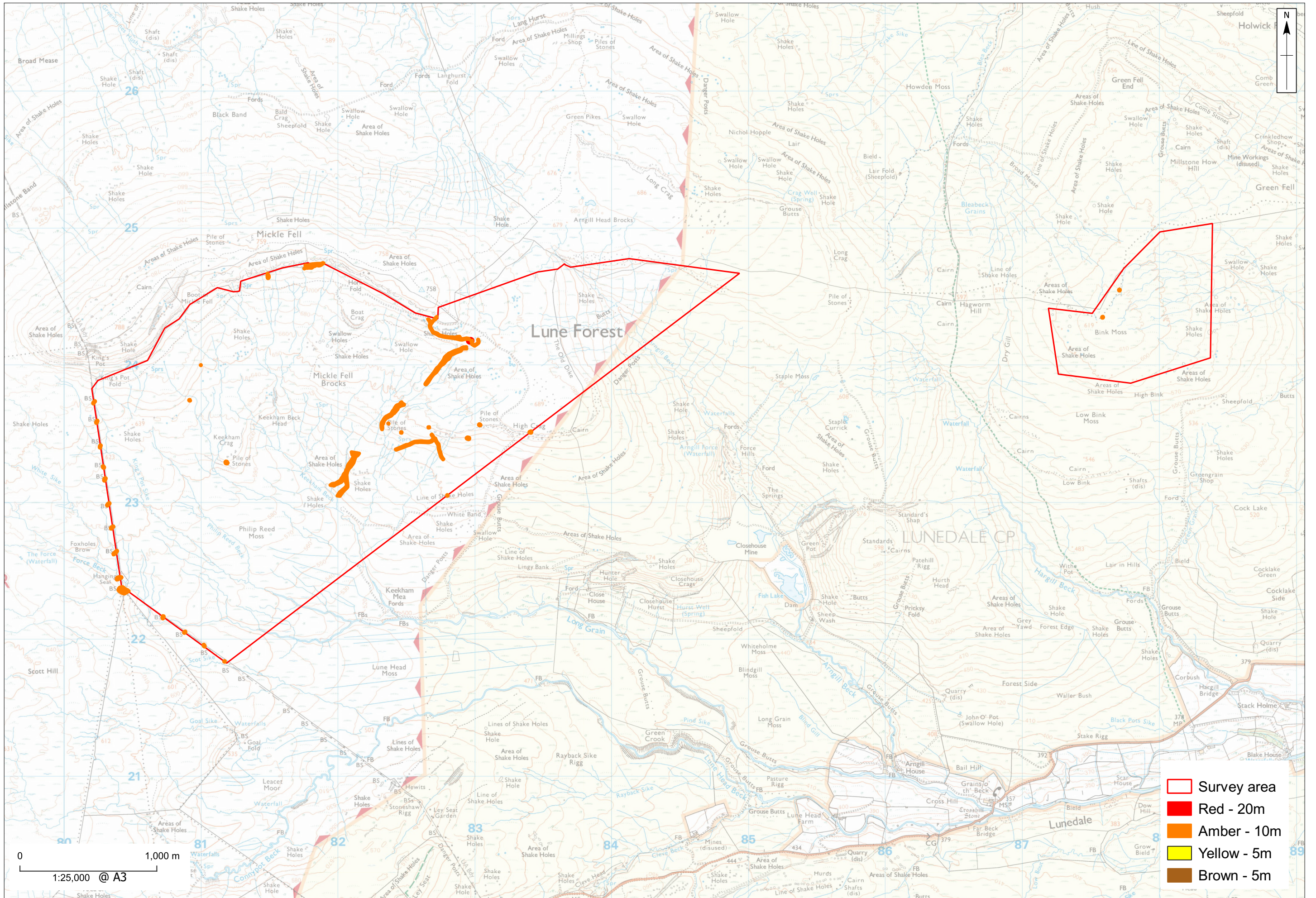






Plate 1: Mesolithic microliths recovered from Wemmergill (Wg16)



Appendix 1: Gazetteer of archaeological features


Catlin gazetteer


ID	HER No	Type	Description	Period	Centroid X	Centroid Y	Image
C001	11356	Mine	Elongated mining area with a spoil heap in western end. The mine is depicted on historical OS maps from 1861 and 1897.		369546	535745	
C002	11356	Mine	Mining waste patch. No evidence of mine nearby	Post-Medieval	369480	535681	
C003		Sheepfold	Oval sheepfold made of Drystone wall. Entrance is not clear anywhere. South corner has foundation course visible.	Post-Medieval	369370	535663	
C004	8243	Sheepfold	HER registered sheepfold, Skirwith Fell Sheep Fold, which is also on historical OS maps from 1861 and 1897. Drystone wall with internal division and sheep creeps or hoggholes within.	Post-Medieval	369214	535593	
C005	11358	Mine	Historical mine	Post-Medieval	369031	535393	

			(depicted on maps from 1861 and 1897) with mining waste downslope mixed with natural scree.				
C006		Cairn	Pile of stones along Pennine way, depicted on OS maps from 1861 and 1897.	Post-Medieval	368778	535360	
C007	8240	Mine	Historical mine depicted on OS maps from 1861 and 1897 and HER as Yad Stone Mine. Large area of rubble with small Drystone structure within. Structure is possible entrance blackage. Wall is 0.7m thick.	Post-Medieval	368448	535215	
C008		Mine	Round shaft mound with a bank attached. Bank runs e to w and is breached at shaft. Bank is 1m wide and 0.3m high	Post-Medieval	368291	535270	

C009		Mine	Historical mine depicted on OS maps from 1861 and 1897. Spoil heaps visible to north.	Post-Medieval	368309	535365	
C010	11349	Mine	Round mine shaft with central hole sealed with concrete. The mine is depicted on historical OS maps from 1861 and 1897.	Post-Medieval	368223	535429	
C011	11387	Mine	Historical mine depicted on OS maps from 1861 and 1897 and HER. Structure and spoil heaps visible	Post-Medieval	368128	535934	
C012		Mine	Historical mine depicted on OS maps from 1861 and 1897. Spoil heaps visible to n.	Post-Medieval	368025	536188	
C013	8296	Structure	Rectangular Drystone structure with unknown function. Wide tilting buttresses are towards one end of structure with another	Post-Medieval	367994	536278	

			space behind.				
C014		Boundary stone	Boundary stone with c engraved facing north and f facing south. The boundary stone is depicted on historical OS maps from 1861 and 1897.	Post-Medieval	367953	536254	
C015		Mine	Three shaft mounds, each with central shaft. This lead mine is depicted on historical OS maps from 1861 and 1897.	Post-Medieval	367736	536080	
C016		Mine	Round shaft mound with central dip. The mine is depicted on historical OS maps from 1861 and 1897.		367595	536002	
C017		Enclosure	Round enclosure, made of stones. Walls are about 0.6m thick with no obvious entrance.	Post-Medieval	367167	537086	
C018	11375	Mine	Shaft mounds with boarded over entrance. The mine is depicted on historical OS maps from 1861 and 1897.	Post-Medieval	367381	535925	

C019		Mine	Round mineshaft with spoil upcast along north side only.	Post-Medieval	367301	537053	
C020	8297	Sheepfold	Large drystone built sheepfold with multiple internal compartments. The sheepfold is depicted on historical OS maps from 1861 and 1897.		367662	535623	
C021		Structure	Small rectangular Drystone structure. Possible shelter.	Post-Medieval	367635	535620	
C022	11374	Mine	Three shaft mounds, depicted on historical OS maps and registered in HER as Culgaith Lead Mine.		367282	535235	
C023		Structure	Square structure with entrance facing west. Located at edge of scree slope. Depicted on historical OS maps from 1861 as sheepfold.	Post-Medieval	367232	535226	

C024		Mine	Mine level depicted on OS maps from 1861 and 1897. Most visible feature is the spoil tip, extending from mine adit.	Post-Medieval	367025	535792	
C025		Leat	Curvilinear leat, extending from one burn eastwards, hugging the base of slope. Leat is cut into the ground with a bank along northern side. A pipe had been installed to bridge over erosion gully. The bank is approx. 2m wide and up to 0.5m in height.	Post-Medieval	369109	538210	
C026	11386	Mine	Mining area depicted on historical OS maps from 1861 and 1897 and in HER database. On site nothing was found except erosion scar at HER location. There is a possible shallow adit low in what appears to be partly collapsed area into river.	Post-Medieval	367360	537180	

C027		Mine	Round mine shaft with central hole.	Post-Medieval	367164	537079	
C028		Enclosure	Half circle enclosure open to the east. Wall made of double row of stones, approx. 0.6m wide. Just north of it is around structure with no obvious entrance, possible shelter, measuring 3.5m diameter and 0.75m in height.	Post-Medieval	366544	536849	
C029		Enclosure	Round structure within natural stone rubble spread. Walls measure approx. 1m thick with no obvious entrance.	Post-Medieval	366530	536846	
C030		Structure	Small oval structure, with 0.5m thick walls and no obvious entrance.	Post-Medieval	367100	537205	
C031		Structure	Small structure with stone slabs as roof and about 0.5m thick walls. Internal space average about 0.4m wide. Open towards east.	Post-Medieval	366368	536987	


C032		Cairn	Large mossy cairn with possible walkers cairn on top. Walkers cairn measures about 1m round and up to 1m in height.	Unknown	366128	536171	
C033		Structure	Rectangular hut with entrance facing south. Walls are 0.5m thick and entrance is 0.5m wide.	Post-Medieval	366256	535746	
C034		Enclosure	Four round enclosures and one linear quarry. The enclosures are drystone built and entrance in various directions.		366305	535731	
C035		Track	Track extending from current boundary gate eastwards.	Post-Medieval	366394	535667	
C036	8306	Enclosure	Enclosure registered in HER database. Nothing found in the area during field survey.		367223	537162	
C037	8307	Enclosure	Enclosure registered in HER database. Nothing found in the area during field survey.		367112	537117	

C038	8305	Sheepfold	Drystone built sheepfold, also depicted on historical OS maps from 1861 and 1897 as sheepfold. The site is registered in HER as Brandy Bottle Spring.		368005	537084	
C039	8298	Sheepfold	Oval drystone built sheepfold with entrance facing west. The sheepfold is depicted on historical maps from 1861.		366685	536687	
C040	8300	Sheepfold	Deflated sheepfold, depicted on historical OS maps from 1861.		365859	536809	
C041		Quarry	Area of quarrying activities, probably for boundary wall construction.		366153	535994	
C042	8290	Sheepfold	Multicellar sheepfold, drystone built, also depicted on historical OS maps from 1861.		366156	536162	
C043	8302	Structure	Site of HER registered Green Fell Building. Not found during field survey.		366881	536216	

C044		Enclosure	Round stone built enclosure, within the screeslope.		366878	536147	
C045		Sheepfold	Drystone built sheepfold with entrance towards SE.		366872	536139	
C046	8294	Mine	HER registered location as Corn Rigg Mining Remains. Nothing found during field survey.		367001	536000	
C047		Mine	Round shaft mound with central hole.		367127	536091	
C048		Mine	Mine level with stone lined banks.		367042	535869	
C049	11376	Mine	Large area of mining waste.		366944	535679	
C050	8292	Structure	Drystone built structure associated with historical mining area depicted on OS maps from 1897.		366775	535600	
C051	8292	Track	Track extending around structure.		366778	535599	
C052	8293	Structure	Square structure within historical mining area from 1897.		366835	535565	
C053		Enclosure	Stone built enclosure which opens		366851	535495	

			up towards a track.				
C054		Quarry	Three quarry areas next to a track.		366917	535371	
C055		Enclosure	Stone built enclosure with a track extending through it.		366943	535285	
C056		Enclosure	Small square enclosure with entrance towards east.		366986	535291	
C057		Enclosure	Section of a drystone built wall, possible shelter wall.		367039	535133	
C058		Enclosure	Stone built wall enclosing an area of quarrying activities.		367001	535147	
C059		Enclosure	Stone built enclosure which opens up towards a track.		367013	535037	
C060	40242	Settlement	HER registered area for Skirwith Fell Hut Circle Settlement. Nothing was found at the location or vicinity during field survey.		367360	534889	
C061	8299	Sheepfold	Drystone built sheepfold with multiple internal cells. Depicted on historical OS maps from 1861 and 1897.		367373	534749	

C062		Sheepfold	Drystone built sheepfold with multiple internal cells. Depicted on historical OS maps from 1861 and 1897.		367096	534474	
C063		Enclosure	Stone built shelter wall.		367020	534539	
C064		Enclosure	Round stone built enclosure with entrance towards north.		366990	534515	
C065		Structure	Stone built shelter hut.		367438	534857	
C066	45734	Mine	Large area for Upper Blackburn Lead Mines. The area contains shaft mounds, levels and possible dam.		369032	536041	
C067		Mine	Round mine shaft with central hole		370094	537136	
C068	11460	Limekiln	Square limekiln, registered as Ousby Fell Lime Kiln in HER.		370290	537027	
C069	11468	Mine	Large mining area, depicted on maps from 1861 and 1897 and containing levels and shaft mounds.		370322	536898	

C070		Enclosure	Round stone built enclosure with entrance towards NE.		367851	536582	
C071		Enclosure	Subrectangular stone built enclosure.		367824	536625	
C072	8257	Sheepfold	Multicellular sheepfold, made of drystone walls. The sheepfold is depicted on historical OS maps from 1861 and 1897.		370340	537306	
C073		Mine	Mine shaft with large central hole and spoil heap piled towards north.		369470	536967	
C074		Boundary stone	Boundary stone with C engraved facing north and F and 1826 engraved facing south. The boundary stone is depicted on historical OS maps from 1861 and 1897.	Post-Medieval	367683	536170	
C075		Mine	Mine level depicted on historical OS maps from 1861 and 1897. Not found during field survey.		366944	535792	
C076		Cairn	Pile of stones depicted on historical OS		366950	534716	





			maps from 1861 and 1897				
C077		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367030	534744	
C078		enclosure	Stone built enclosure, possibly quarry related.		366835	535560	
C079		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367431	534856	
C080		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367535	534883	
C081		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367623	534882	
C082		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367723	534889	
C083		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367837	534922	
C084		Track	Track associated with quarrying and mining	Post-Medieval	367011	535089	


C085		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367935	534960	
C086		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		368019	534989	
C088		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		368170	535117	
C089		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		368229	535165	
C090		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		368269	535192	
C091		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		368319	535210	
C092		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		368691	535322	
C093		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		368017	535465	
C094		Cairn	Pile of stones depicted on historical OS		367267	535831	

			maps from 1861 and 1897				
C095		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367419	535951	
C096		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367458	535983	
C097		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		368130	535072	
C098		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367598	536092	
C099		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367617	536114	
C100		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367550	536061	
C101		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367631	536127	
C102		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367875	534948	

C103		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897		367041	535671	
C104		Track	Track depicted on historical OS maps from 1897.		367014	536716	
C105		Track	Trackway depicted on historical OS maps from 1861 and 1897. The track is part of the current Pennine Way.		367761	534975	
C106		Cairn	Boundary stone depicted on historical OS maps from 1861.		369069	536482	
C107		Cairn	Boundary stone depicted on historical OS maps from 1861.		369303	536544	
C108		Cairn	Boundary stone depicted on historical OS maps from 1861.		369741	536662	
C109		Cairn	Boundary stone depicted on historical OS maps from 1861.		370108	536718	

Warcop gazetteer

ID	HER No	Type	Description	Period	Centroid X	Centroid Y	Image
W01		Cairn	Large roundish cairn with smaller modern one on top is located at edge of plateau.	Prehistoric	374391	525099	
W02		Cairn	Roughly round cairn next to old channel	Unknown	375484	525632	
W03		Cairn	Low round stone cairn found within the basin of a mill pond.	Unknown	375621	524449	
W04		Dam	Modern dam closing gap between two peat banks. The dam is drystone built with later collapse on top.	Post-Medieval	375717	524477	

W05	15614	Mill race	Mill race depicted on historical OS maps and recorded in HER database. The mill race is one of multiple erosion channels leading from Gaskill Tarn.	Post-Medieval	375810	524411	
W06	45757	Quarry	Large quarry, dug into the hillside with roads entering at north corner and west corner.	Post-Medieval	374330	525305	
W07	45746	Enclosure	At least two circular enclosures are located on level ground. The enclosure are made of earthwork and stone. HER database records the enclosures as High Cup Scar Circular Enclosure	IA	374462	525613	
W08	45754	Enclosure	Curvilinear earthwork enclosure, located on level ground. The enclosure is registered in HER database as High Cup Nick Curvilinear Enclosure	IA	374619	525921	
W09		Cairn	Historic OS map depict a pile of stones in this area which was not found during field survey	Post-Medieval	375200	525883	

W10		Mine	An area of rake depicted on historical OS maps from 1859 and 1897	Post-Medieval	378808	523701	
W11		Sheepfold	Sheepfold depicted on OS maps from 1859 and 1897	Post-Medieval	379359	521935	
W12		Cairn	Pile of stones depicted on historical OS maps from 1897.	Post-Medieval	378709	523234	
W13		Cairn	Pile of stones depicted on historical OS maps from 1859 and 1897.	Post-Medieval	378726	523648	
W14		Cairn	Pile of stones depicted on historical OS maps from 1859	Post-Medieval	378761	523217	
W15		Cairn	Pile of stones depicted on historical OS maps from 1859 and 1897	Post-Medieval	379380	524014	
W16		Boundary stone	Boundary stone depicted on historical OS maps from 1859	Post-Medieval	380023	523869	
W17		Boundary stone	Boundary stone depicted on historical OS maps from 1859	Post-Medieval	379979	523783	
W18		Boundary stone	Boundary stone depicted on historical maps from 1897	Post-Medieval	380250	523294	
W19		Boundary stone	Boundary stone depicted on historical	Post-Medieval	380264	523201	

			maps from 1897				
W20		Boundary stone	Boundary stone depicted on historical OS maps from 1859	Post-Medieval	379836	523510	
W21		Boundary stone	Boundary stone depicted on historical maps from 1897	Post-Medieval	380353	522664	
W22		Boundary stone	Boundary stone depicted on historical maps from 1897	Post-Medieval	380387	522480	
W23		Boundary stone	Boundary stone depicted on historical maps from 1897	Post-Medieval	380297	523017	
W24		Boundary stone	Boundary stone depicted on historical maps from 1897	Post-Medieval	380327	522846	
W25		Boundary stone	Boundary stone depicted on historical maps from 1897	Post-Medieval	380406	522388	
W26		Boundary stone	A boundary stone is depicted on historical OS maps from 1859	Post-Medieval	379511	522876	
W27	6266	Mine	Mining area registered in HER database as Mason Hole Lead Mines, Scordale, Murton	Post-Medieval	379496	522509	

Wemmergill gazetteer

ID	HER No	Type	Description	Period	Centroid X	Centroid Y	Image
Wg01		Leat	Curvilinear leat extending from channel westwards. Bank along 2.5m wide, 0.3m high.	Post-Medieval	381835.5	524722.9	
Wg02		Leat	Narrow leat aligned east to west with low bank along south edge. Bank is 1m wide and 0.2m in height.	Post-Medieval	381829.3	524735.4	
Wg03	2304719	Mine	Spoil heap from historic lead mine. Spoil gravel exposed on surface. Possible adit 6m to north	Post-Medieval	381491.2	524648	
Wg04	3244025	Hush	Hush, from HER database, depicted on historical OS maps.	Post-Medieval	382788.3	524027.6	

Wg05		Cairn	Low cairn at edge of scree slope.	Post-Medieval	382370.3	523572.6	
Wg06	3243958	Structure	Rectangular Drystone structure at base of scree slope. Entrance is in east wall. Door is about 0.5-0.6 m wide	Post-Medieval	382464.8	523507.3	
Wg07	3243987	Structure	Rectangular Drystone structure at top of moor. Entrance is in south wall. Door is about 0.5-0.6 m wide	Post-Medieval	382665.5	523544.5	
Wg08		Leat	Curvilinear leat extending downslope, following topography. No sign of mine. Upcast bank along downslope side. Bank is 1.5m wide and 0.2m in height	Post-Medieval	382623.1	523416.4	
Wg09	3244025	Dam	Curvilinear dam, depicted on historical OS maps. The dam bank has weathered a lot. Some	Post-Medieval	383005.5	524159.4	

			stones are visible associated with the dam. Possible outlet towards west.				
Wg10		Leat	Narrow leat which feeds into pond to east. Low bank along south edge. Bank is about 0.75m wide and 0.25m high	Post-Medieval	382795.3	524229.2	
Wg11		Structure	Old walls depicted on historical OS maps, not found during field survey	Post-Medieval	382952.1	523464.9	
Wg12		Cairn	Currick depicted on historical OS maps but not found during field survey. There are number of large boulders in the vicinity which may have function as a marker or being part of a cairn.	Post-Medieval	383037.3	523563	
Wg13		Cairn	Currick depicted on historical OS maps	Post-Medieval	383408.6	523510.1	
Wg14		Cairn	Currick depicted on historical OS maps	Post-Medieval	381187.4	523287.4	
Wg15		Cairn	Currick depicted on historical OS maps	Post-Medieval	380918.3	523742.2	
Wg16		Flint	Two pieces of prehistoric flint were found on	Pre-historic	382967.8	524176.9	

			exposed ground				
Wg17	2735857	Find spot	Find spot of a barbed and tanged arrow-head from Mickle Fell, Lunedale, logged with HER	Pre-historic	381000.4	523999	
Wg18	3243927	Hush	Hush, from HER database, depicted on historical OS maps.	Post-Medieval	382398.3	523649.4	
Wg19	2304718	Hush, Dam	Hush with a dam at north end, from HER database, depicted on historical OS maps.	Post-Medieval	382065.8	523210.5	
Wg20		Cairn	A currick is depicted in this area on historical OS maps from 1854	Post-Medieval	382801.4	523047.6	
Wg21		Cairn	Boundary mound depicted on historical OS maps from 1854	Unknown	387710.3	524547.3	
Wg22		Cairn	Boundary mound depicted on historical OS maps from 1854	Unknown	387587.5	524348.6	
Wg23		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Post-Medieval	381173.6	521834.8	
Wg24		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Post-Medieval	381024.1	521950.1	

Wg25		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Post-Medieval	380882.6	522048.3	
Wg26		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Post-Medieval	380724.2	522157.6	
Wg27		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Post-Medieval	380432	522354.1	
Wg28		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380401.2	522443.7	
Wg29		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380375	522629.2	
Wg30		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380351.5	522813.6	
Wg31		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380324.2	522983.3	
Wg32		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380298.9	523164.9	

Wg33		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380288.8	523254.6	
Wg34		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380265.1	523405.1	
Wg35		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380240.2	523585.4	
Wg36		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval	380219.9	523727.5	

Appendix 2: Database of archaeological features

ID	HER no	Type	Description	Period	Condition	Max Length	Max Width	Max Depth	Max Height	Siting	Veg 1	Veg 2	Image 1	Buffer type	Buffer size	Source	Centroid X	Centroid Y	Date
C001	11356	Mine	Elongated mining area with a spoil heap in western end. The mine is depicted on historical OS maps from 1861 and 1897.										C1-1; C1-2; C1-3	Amber	10	Historical OS, LIDAR, HER	369546	535745	23/03/2023
C002	11356	Mine	Mining waste patch. No evidence of mine nearby.	Post-Medieval	Good	6	7		0.1					Yellow	5	LIDAR	369480	535682	23/03/2023
C003		Sheepfold	Oval sheepfold made of Drystone wall. Entrance is not clear anywhere. South corner has foundation course visible.	Post-Medieval	Fair	11	4.5		0.6	Level ground	Moss	Reeds	C3	Amber	10	SURVEY	369371	535663	23/03/2023
C004	8243	Sheepfold	HER registered sheepfold, Skirwith Fell Sheep Fold, which is also on historical OS maps from 1861 and 1897. Drystone wall with internal division and sheep creeps or hoggholes within.	Post-Medieval	Good				2	Slope	Moss			Amber	10	Historical OS, LIDAR, HER	369215	535594	23/03/2023
C005	11358	Mine	Historical mine (depicted on maps from 1861 and 1897) with mining waste downslope mixed with natural scree.	Post-Medieval	Good					Slope	Moss		C5	Amber	10	Historical OS, LIDAR, HER	369031	535393	23/03/2023
C006		Cairn	Pile of stones along Pennine way, depicted on OS maps from 1861 and 1897.	Post-Medieval	Fair	6	5		0.25	Slope	Grass	Moss	C6	Amber	10	Historical OS	368778	535360	23/03/2023
C007	8240	Mine	Historical mine depicted on OS maps from 1861 and 1897 and HER as Yad Stone Mine. Large area of rubble with small Drystone structure within. Structure is possible entrance blackage. Wall is 0.7m thick.	Post-Medieval	Good	3.5	2.5		1.2	Slope	Moss		C7	Amber	10	Historical OS, HER	368449	535215	23/03/2023
C008		Mine	Round shaft mound with a bank attached. Bank runs e to w and is breached at shaft. Bank is 1m wide and 0.3m high	Post-Medieval	Good	6.5	6.5	1.5	0.3	Slope	Moss	Grass	C8	Amber	10	LIDAR	368292	535271	23/03/2023
C009		Mine	Historical mine depicted on OS maps from 1861 and 1897. Spoil heaps visible to north.	Post-Medieval	Good					Slope	Moss	Grass	C9	Amber	10	Historical OS, LIDAR	368309	535365	23/03/2023
C010	11349	Mine	Round mine shaft with central hole sealed with concrete. The mine is depiced on historical OS maps from 1861 and 1897.	Post-Medieval	Good	13	13		2.5	Slope	Moss		C10	Amber	10	Historical OS, LIDAR, HER	368223	535429	23/03/2023
C011	11387	Mine	Historical mine depicted on OS maps from 1861 and 1897 and HER. Structure and spoil heaps visible.	Post-Medieval	Good					Slope	Moss	Grass	C11-1; C11-2	Amber	10	Historical OS, LIDAR, HER	368128	535935	23/03/2023
C012		Mine	Historical mine depicted on OS maps from 1861 and 1897. Spoil heaps visible to north.	Post-Medieval	Good					Slope	Moss		C12	Amber	10	Historical OS, LIDAR	368025	536188	23/03/2023

C013	8296	Structure	Rectangular Drystone structure with unknown function. Wide tilting buttresses are towards one end of structure with another space behind.	Post-Medieval	Good	4.5	3.5		1.7	Break of slope	Moss	Reeds	C13	Amber	10	HER	367995	536278	23/03/2023
C014		Boundary stone	Boundary stone with c engraved facing north and f facing south. The boundary stone is depicted on historical OS maps from 1861 and 1897.	Post-Medieval	Good		0.45	0.1	0.75	Break of slope	Grass		C14-1; C14-2	Red	20	Historical OS	367954	536254	23/03/2023
C015		Mine	Three shaft mounds, each with central shaft. This lead mine is depicted on historical OS maps from 1861 and 1897.	Post-Medieval	Good					Level ground			C15-1; C15-2	Amber	10	Historical OS, LIDAR	367737	536081	23/03/2023
C016		Mine	Round shaft mound with central dip. The mine is depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS, LIDAR	367596	536003	23/03/2023
C017		Enclosure	Round enclosure, made of stones. Walls are about 0.6m thick with no obvious entrance.	Post-Medieval	Good	5	5		0.4	Slope	Moss	Heather		Amber	10	LIDAR	367167	537087	23/03/2023
C018	11375	Mine	Shaft mounds with boarded over entrance. The mine is depicted on historical OS maps from 1861 and 1897.	Post-Medieval	Good				0.4	Slope				Amber	10	Historical OS, LIDAR, HER	367382	535925	23/03/2023
C019		Mine	Round mineshaft with spoil upcast along north side only.	Post-Medieval	Good	11	9		1.5	Slope	Grass	Moss	C19	Amber	10	LIDAR	367301	537054	23/03/2023
C020	8297	Sheepfold	Large drystone built sheepfold with multiple internal compartments. The sheepfold is depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS, LIDAR, HER	367662	535624	23/03/2023
C021		Structure	Small rectangular Drystone structure. Possible shelter.	Post-Medieval		3.5	2.5		1.5	Ridge				Amber	10	SURVEY	367636	535621	23/03/2023
C022	11374	Mine	Three shaft mounds, depicted on historical OS maps and registered in HER as Culgaith Lead Mine.											Amber	10	Historical OS, LIDAR, HER	367279	535234	23/03/2023
C023		Structure	Square structure with entrance facing west. Located at edge of scree slope. Depicted on historical OS maps from 1861 as sheepfold.	Post-Medieval	Fair	5	2.5		1.2	Slope			C23-1; C23-2	Amber	10	Historical OS, LIDAR	367232	535226	23/03/2023
C024		Mine	Mine level depicted on OS maps from 1861 and 1897. Most visible feature is the spoil tip, extending from mine adit.	Post-Medieval	Good					Slope	Grass	Moss	C24-1; C24-2	Amber	10	Historical OS, LIDAR	367026	535793	23/03/2023

C025		Leat	Curvilinear leat, extending from one burn eastwards, hugging the base of slope. Leat is cut into the ground with a bank along northern side. A pipe had been installed to bridge over erosion gully. The bank is approx. 2m wide and up to 0.5m in height.	Post-Medieval	Good	248	1	0.4		Slope	Moss	Reeds	C25-1; C25-2; C25-3	Yellow	5	LIDAR, SURVEY	369110	538211	23/03/2023
C026	11386	Mine	Mining area depicted on historical OS maps from 1861 and 1897 and in HER database. On site nothing was found except erosion scar at HER location. There is a possible shallow adit low in what appears to be partly collapsed area into river.	Post-Medieval	Unknown					Slope	Grass	Moss	C26	Amber	10	Historical OS, HER	367361	537181	23/03/2023
C027		Mine	Round mine shaft with central hole.	Post-Medieval	Good					Slope	Moss	Grass	C27	Amber	10	LIDAR	367165	537079	23/03/2023
C028		Enclosure	Half circle enclosure open to the east. Wall made of double row of stones, approx. 0.6m wide. Just north of it is around structure with no obvious entrance, possible shelter, measuring 3.5m diameter and 0.75m in height.	Post-Medieval	Good	5.5	5.5		0.5	Slope	Heather	Moss	C28-1; C28-2	Amber	10	LIDAR	366544	536850	23/03/2023
C029		Enclosure	Round structure within natural stone rubble spread. Walls measure approx. 1m thick with no obvious entrance.	Post-Medieval	Good	3	3		0.4	Slope	Heather		C29	Amber	10	SURVEY	366531	536846	23/03/2023
C030		Structure	Small oval structure, with 0.5m thick walls and no obvious entrance.	Post-Medieval	Good	5	4		0.5	Slope	Heather	Moss		Amber	10	SURVEY	367100	537206	23/03/2023
C031		Structure	Small structure with stone slabs as roof and about 0.5m thick walls. Internal space average about 0.4m wide. Open towards east.	Post-Medieval	Good	2	1.5		1	Slope	Heather		C31	Amber	10	SURVEY	366369	536988	23/03/2023
C032		Cairn	Large mossy cairn with possible walkers cairn on top. Walkers cairn measures about 1m round and up to 1m in height.	Unknown	Good	4.5	4		1	Break of slope	Moss		C32	Red	20	LIDAR	366128	536172	23/03/2023
C033		Structure	Rectangular hut with entrance facing south. Walls are 0.5m thick and entrance is 0.5m wide.	Post-Medieval	Good	3.5	3.5		1.5	Ridge	Moss	Grass	C33	Amber	10	LIDAR	366256	535746	23/03/2023
C034		Enclosure	Four round enclosures and one linear quarry. The enclosures are drystone built and entrance in various directions.			65	6.5		0.5				C34-1; C34-2; C34-3	Amber	10	LIDAR	366305	535731	23/03/2023
C035		Track	Track extending from current boundary gate eastwards.	Post-Medieval	Good	245	1.5	0.2		Break of slope	Grass		C35	Yellow	5	LIDAR	366395	535668	23/03/2023

C036	8306	Enclosure	Enclosure registered in HER database. Nothing found in the area during field survey.												Brown	5	HER	367224	537162	23/03/2023
C037	8307	Enclosure	Enclosure registered in HER database. Nothing found in the area during field survey.												Brown	5	HER	367113	537117	23/03/2023
C038	8305	Sheepfold	Drystone built sheepfold, also depicted on historical OS maps from 1861 and 1897 as sheepfold. The site is registered in HER as Brandy Bottle Spring.												Amber	10	Historical OS, LIDAR, HER	368005	537085	23/03/2023
C039	8298	Sheepfold	Oval drystone built sheepfold with entrance facing west. The sheepfold is depicted on historical maps from 1861.												Amber	10	Historical OS, LIDAR, HER	366685	536688	23/03/2023
C040	8300	Sheepfold	Deflated sheepfold, depicted on historical OS maps from 1861.												Amber	10	Historical OS, HER	365860	536809	23/03/2023
C041		Quarry	Area of quarrying activities, probably for boundary wall construction.												Yellow	5	LIDAR	366153	535994	23/03/2023
C042	8290	Sheepfold	Multicellar sheepfold, drystone built, also depicted on historical OS maps from 1861.												Amber	10	Historical OS, LIDAR, HER	366156	536162	23/03/2023
C043	8302	Structure	Site of HER registered Green Fell Building. Not found during field survey.												Amber	10	HER	366881	536216	23/03/2023
C044		Enclosure	Round stone built enclosure, within the scree slope.												Amber	10	SURVEY	366878	536148	23/03/2023
C045		Sheepfold	Drystone built sheepfold with entrance towards SE.												Amber	10	LIDAR	366872	536139	23/03/2023
C046	8294	Mine	HER registered location as Corn Rigg Mining Remains. Nothing found during field survey.												Amber	10	HER	367002	536001	23/03/2023
C047		Mine	Round shaft mound with central hole.												Amber	10	LIDAR	367128	536091	23/03/2023
C048		Mine	Mine level with stone lined banks.												Amber	10	LIDAR	367043	535869	23/03/2023
C049	11376	Mine	Large area of mining waste.												Amber	10	Historical OS, LIDAR, HER	366944	535680	23/03/2023
C050	8292	Structure	Drystone built structure associated with historical mining area depicted on OS maps from 1897.												Amber	10	Historical OS, LIDAR, HER	366775	535600	23/03/2023
C051	8292	Track	Track extending around structure.												Yellow	5	Historical OS, LIDAR, HER	366767	535595	23/03/2023
C052	8293	Structure	Square structure within historical mining area from 1897.												Amber	10	Historical OS, LIDAR, HER	366836	535566	23/03/2023
C053		Enclosure	Stone built enclosure which opens up towards a track.												Amber	10	LIDAR	366851	535495	23/03/2023
C054		Quarry	Three quarry areas next to a track.												Yellow	5	LIDAR	366918	535372	23/03/2023

C055		Enclosure	Stone built enclosure with a track extending through it.											Amber	10	LIDAR	366944	535286	23/03/2023
C056		Enclosure	Small square enclosure with entrance towards east.											Amber	10	LIDAR	366987	535291	23/03/2023
C057		Enclosure	Section of a drystone built wall, possible shelter wall.											Amber	10	LIDAR	367039	535133	23/03/2023
C058		Enclosure	Stone built wall enclosing an area of quarrying activities.											Amber	10	LIDAR	366998	535150	23/03/2023
C059		Enclosure	Stone built enclosure which opens up towards a track.											Amber	10	LIDAR	367014	535037	23/03/2023
C060	40242	Settlement	HER registered area for Skirwith Fell Hut Circle Settlement. Nothing was found at the location or vicinity during field survey.											Yellow	5	HER	367360	534890	23/03/2023
C061	8299	Sheepfold	Drystone built sheepfold with multiple internal cells. Depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS, LIDAR, HER	367373	534750	23/03/2023
C062		Sheepfold	Drystone built sheepfold with multiple internal cells. Depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS, LIDAR	367097	534474	23/03/2023
C063		Enclosure	Stone built shelter wall.											Amber	10	LIDAR	367020	534540	23/03/2023
C064		Enclosure	Round stone built enclosure with entrance towards north.											Amber	10	LIDAR	366990	534515	23/03/2023
C065		Structure	Stone built shelter hut.											Amber	10	Historical OS, LIDAR	367438	534858	23/03/2023
C066	45734	Mine	Large area for Upper Blackburn Lead Mines. The area contains shaft mounds, levels and possible dam.											Amber	10	Historical OS, LIDAR, HER	369021	536024	23/03/2023
C067		Mine	Round mine shaft with central hole.											Amber	10	LIDAR	370095	537137	23/03/2023
C068	11460	Limekiln	Square limekiln, registered as Ousby Fell Lime Kiln in HER.											Red	20	LIDAR, HER	370291	537028	23/03/2023
C069	11468	Mine	Large mining area, depicted on maps from 1861 and 1897 and containing levels and shaft mounds.											Amber	10	Historical OS, LIDAR, HER	370322	536899	23/03/2023
C070		Enclosure	Round stone built enclosure with entrance towards NE.											Amber	10	LIDAR	367851	536583	23/03/2023
C071		Enclosure	Subrectangular stone built enclosure.											Amber	10	LIDAR	367825	536626	23/03/2023
C072	8257	Sheepfold	Multicellular sheepfold, made of drystone walls. The sheepfold is depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS, LIDAR, HER	370340	537306	23/03/2023
C073		Mine	Mine shaft with large central hole and spoil heap piled towards north.											Amber	10	LIDAR	369470	536967	23/03/2023
C074		Boundary stone	Boundary stone with c engraved facing north and f facing south. The boundary stone is depicted on historical OS maps from 1861 and 1897.	Post-Medieval									C74-1; C74-2	Red	20	Historical OS	367684	536170	23/03/2023

C075		Mine	Mine level depicted on historical OS maps from 1861 and 1897. Not found during field survey.											Amber	10	Historical OS, LIDAR	366945	535793	23/03/2023
C076		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	366951	534717	23/03/2023
C077		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367030	534745	23/03/2023
C078		Enclosure	Quarry around a structure, possibly mining related.											Amber	10	Historical OS, LIDAR	366836	535566	23/03/2023
C079		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367432	534856	23/03/2023
C080		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367535	534884	23/03/2023
C081		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367623	534882	23/03/2023
C082		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367723	534889	23/03/2023
C083		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367837	534923	23/03/2023
C084		Track	Track associated with quarrying and mining.	Post-Medieval	Good				Slope	Grass	Moss			Amber	10	LIDAR	369069	536483	23/03/2023
C085		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367935	534960	23/03/2023
C086		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	368020	534989	23/03/2023
C088		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	368170	535117	23/03/2023
C089		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	368229	535166	23/03/2023
C090		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	368269	535192	23/03/2023
C091		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS	368319	535210	23/03/2023
C092		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	368692	535322	23/03/2023
C093		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	368017	535466	23/03/2023
C094		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367267	535831	23/03/2023

C095		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS	367419	535951	23/03/2023
C096		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS	367458	535983	23/03/2023
C097		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	368131	535073	23/03/2023
C098		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS	367599	536093	23/03/2023
C099		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367617	536114	23/03/2023
C100		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367550	536061	23/03/2023
C101		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Amber	10	Historical OS	367632	536128	23/03/2023
C102		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367875	534949	23/03/2023
C103		Cairn	Pile of stones depicted on historical OS maps from 1861 and 1897.											Brown	5	Historical OS	367041	535671	23/03/2023
C104		Track	Track depicted on historical OS maps from 1897.											Yellow	5	Historical OS, LIDAR	367023	536683	23/03/2023
C105		Track	Trackway depicted on historical OS maps from 1861 and 1897. The track is part of the current Pennine Way.											Yellow	5	Historical OS, LIDAR	367798	534910	23/03/2023
C106		Cairn	Boundary stone depicted on historical OS maps from 1861.											Brown	5	Historical OS	369069	536483	23/03/2023
C107		Cairn	Boundary stone depicted on historical OS maps from 1861.											Brown	5	Historical OS	369304	536544	23/03/2023
C108		Cairn	Boundary stone depicted on historical OS maps from 1861.											Brown	5	Historical OS	369742	536662	23/03/2023
C109		Cairn	Boundary stone depicted on historical OS maps from 1861.											Brown	5	Historical OS	370108	536718	23/03/2023

ID	HER no	Type	Description	Period	Condition	Max Length	Max Width	Max Depth	Max Height	Siting	Veg 1	Veg 2	Erosion	Image 1	Buffer type	Buffer size	Source	Centriod X	Centroid Y	Date
W01		Cairn	Large roundish cairn with smaller modern one on top is located at edge of plateau.	Prehistoric	Fair	8	8		1	Break of slope			Visitor	W1-1; W1-2	Red	20	LIDAR, SURVEY	374391	525099	01/03/2023
W02		Cairn	Roughly round cairn next to old channel.	Unknown	Good	4	5		0.7	Level ground	Grass			W2	Red	20	SURVEY	375484	525632	01/03/2023
W03		Cairn	Low round stone cairn found within the basin of a mill pond.	Unknown	Fair	2	2		0.3	Level ground	Moss			W3-1; W3-2	Amber	10	SURVEY	375621	524449	01/03/2023
W04		Dam	Modern dam closing gap between two peat banks. The dam is drystone built with later collapse on top.	Post-Medieval	Good	39	2		0.8	Level ground	Heather	Moss	Water	W4-1; W4-2; W4-3; W4-4; W4-5; W4-6; W4-7; W4-8; W4-9; W4-10; W4-11	Amber	10	SURVEY	375717	524477	01/03/2023
W05	15614	Mill race	Mill race depicted on historical OS maps and recorded in HER database. The mill race is one of multiple erosion channels leading from Gaskill Tarn.	Post-Medieval	Fair		6	1.5						W5	Amber	10	Historical OS, LIDAR, HER	375810	524411	01/03/2023
W06	45757	Quarry	Large quarry, dug into the hillside with roads entering at north corner and west corner.	Post-Medieval	Good	195	175			Slope	Moss	Grass		W6-1; W6-2; W6-3; W6-4; W6-5; W6-6	Yellow	5	Historical OS, LIDAR, HER	374330	525305	01/03/2023
W07	45746	Enclosure	At least two circular enclosures are located on level ground. The enclosure are made of earthwork and stone. HER database records the enclosures as High Cup Scar Circular Enclosure.	IA	Fair	16	12		0.3	Level ground	Moss	Grass		W7-1; W7-2; W7-3; W7-4; W7-5	Red	20	LIDAR, HER	374462	525613	01/03/2023
W08	45754	Enclosure	Curvilinaer earthwork enclosure, located on level ground. The enclosure is registered in HER database as High Cup Nick Curvilinear Enclosure.	IA	Fair	61	45		0.3	Level ground	Moss	Grass		W8-1; W8-2; W8-3; W8-4; W8-5; W8-6; W8-7; W8-8	Red	20	HER	374619	525921	01/03/2023
W09		Cairn	Historic OS map depicts a pile of stones in this area which was not found during field survey.	Post-Medieval	Unknown	0	0		0	Slope					Brown	5	Historical OS	375200	525883	01/03/2023
W13		Cairn	Pile of stones depicted on historical OS maps from 1859 and 1897.	Post-Medieval											Amber	10	Historical OS	378726	523648	01/03/2023
W10		Mine	An area of rake depicted on historical OS maps from 1859 and 1897	Post-Medieval											Amber	10	Historical OS	378808	523701	01/03/2023
W12		Cairn	Pile of stones depicted on historical OS maps from 1897.	Post-Medieval											Amber	10	Historical OS	378709	523234	01/03/2023
W14		Cairn	Pile of stones depicted on historical OS maps from 1859.	Post-Medieval											Amber	10	Historical OS	378761	523217	01/03/2023
W15		Cairn	Pile of stones depicted on historical OS maps from 1859 and 1897.	Post-Medieval											Amber	10	Historical OS	379380	524014	01/03/2023
W16		Boundary stone	Boundary stone depicted on historical OS maps from 1859.	Post-Medieval											Amber	10	Historical OS	380023	523869	01/03/2023
W17		Boundary stone	Boundary stone depicted on historical OS maps from 1859.	Post-Medieval											Amber	10	Historical OS	379979	523783	01/03/2023
W20		Boundary stone	Boundary stone depicted on historical OS maps from 1859.	Post-Medieval											Amber	10	Historical OS	379836	523510	01/03/2023
W18		Boundary stone	Boundary stone depicted on historical maps from 1897.	Post-Medieval											Amber	10	Historical OS	380250	523294	01/03/2023
W19		Boundary stone	Boundary stone depicted on historical maps from 1897.	Post-Medieval											Amber	10	Historical OS	380264	523201	01/03/2023
W23		Boundary stone	Boundary stone depicted on historical maps from 1897.	Post-Medieval											Amber	10	Historical OS	380297	523017	01/03/2023
W24		Boundary stone	Boundary stone depicted on historical maps from 1897.	Post-Medieval											Amber	10	Historical OS	380327	522846	01/03/2023
W21		Boundary stone	Boundary stone depicted on historical maps from 1897.	Post-Medieval											Amber	10	Historical OS	380353	522664	01/03/2023
W22		Boundary stone	Boundary stone depicted on historical maps from 1897.	Post-Medieval											Amber	10	Historical OS	380387	522480	01/03/2023
W25		Boundary stone	Boundary stone depicted on historical maps from 1897.	Post-Medieval											Amber	10	Historical OS	380406	522388	01/03/2023
W11		Sheepfold	Sheepfold depicted on OS maps from 1859 and 1897.	Post-Medieval											Amber	10	Historical OS, LIDAR	379359	521935	01/03/2023
W26		Boundary stone	A boundary stone is depicted on historical OS maps from 1859.	Post-Medieval											Amber	10	Historical OS	379511	522876	01/03/2023
W27	6266	Mine	Mining area registered in HER database as Mason Hole Lead Mines, Scordale, Murton.	Post-Medieval											Amber	10	HER	379496	522509	01/03/2023

ID	HER No	Type	Description	Period	Condition	Siting	Max Length	Max Width	Max Depth	Max Height	Veg 1	Veg 2	Erosion	Image	Buffer type	Buffer size	Source	Centroid X	Centroid Y	Date
Wg01		Leat	Curvilinear leat extending from channel westwards. Bank along 2.5m wide, 0.3m high.	Post-Medieval	Good	Slope	149	1	0.2		Grass	Moss		WG1-1; WG1-2	Amber	10	LIDAR	381835	524722	20/03/2023
Wg02		Leat	Narrow leat aligned east to west with low bank along south edge. Bank is 1m wide and 0.2m in height.	Post-Medieval	Good	Slope	130	0.5	0.2		Grass	Moss		WG2	Amber	10	LIDAR	381829	524735	20/03/2023
Wg03	2304719	Mine	Spoil heap from historic lead mine. Spoil gravel exposed on surface. Possible adit 6m to north.	Post-Medieval	Good	Slope	17	9		1	Moss		Animal burrow	WG3-1; WG3-2; WG3-3; WG3-4	Amber	10	Historical OS, LIDAR, HER	381491	524648	20/03/2023
Wg04	3244025	Hush	Hush, from HER database, depicted on historical OS maps.	Post-Medieval	Good	Level ground	1430	13	1		Grass	Moss		WG4	Amber	10	Historical OS, LIDAR, HER	382788	524027	20/03/2023
Wg05		Cairn	Low cairn at edge of scree slope.	Post-Medieval	Fair	Slope	2	2		0.7				WG5	Amber	10	Historical OS	382370	523572	20/03/2023
Wg06	3243958	Structure	Rectangular Drystone structure at base of scree slope. Entrance is in east wall. Door is about 0.5-0.6 m wide.	Post-Medieval	Fair	Slope	5	4		1	Moss	Heather		WG6-1; WG6-2; WG6-3; WG6-4; WG6-5	Amber	10	Historical OS, HER	382464	523507	20/03/2023
Wg07	3243987	Structure	Rectangular Drystone structure at top of moor. Entrance is in south wall. Door is about 0.5-0.6 m wide.	Post-Medieval	Fair	Slope	4.5	3.5		0.7	Heather	Moss		WG7-1; WG7-2; WG7-3	Amber	10	Historical OS, HER	382665	523544	20/03/2023
Wg08		Leat	Curvilinear leat extending downslope, following topography. No sign of mine. Upcast bank along downslope side. Bank is 1.5m wide and 0.2m in height.	Post-Medieval	Good	Slope	340	1.5	0.2		Moss	Reeds		WG8	Amber	10	LIDAR	382623	523416	20/03/2023
Wg09	3244025	Dam	Curvilinear dam, depicted on historical OS maps. The dam bank has weathered a lot. Some stones are visible associated with the dam. Possible outlet towards west.	Post-Medieval	Fair	Level ground	104	7.5	0.3	1	Moss	Grass		WG9-1; WG9-2; WG9-3	Amber	10	Historical OS, LIDAR, HER	383005	524159	20/03/2023
Wg10		Leat	Narrow leat which feeds into pond to east. Low bank along south edge. Bank is about 0.75m wide and 0.25m high.	Post-Medieval	Good	Slope	410	0.75	0.2		Grass	Moss		WG10-1; WG10-2	Amber	10	LIDAR	382795	524229	20/03/2023
Wg11		Structure	Old walls depicted on historical OS maps, not found during field survey.	Post-Medieval											Amber	10	Historical OS	382952	523464	20/03/2023
Wg12		Cairn	Currick depicted on historical OS maps but not found during field survey. There are number of large boulders in the vicinity which may have function as a marker or being part of a cairn.	Post-Medieval											Amber	10	Historical OS	383037	523563	20/03/2023
Wg13		Cairn	Currick depicted on historical OS maps.	Post-Medieval											Amber	10	Historical OS	383408	523510	20/03/2023
Wg14		Cairn	Currick depicted on historical OS maps.	Post-Medieval											Amber	10	Historical OS	381187	523287	20/03/2023
Wg15		Cairn	Currick depicted on historical OS maps.	Post-Medieval											Amber	10	Historical OS	380918	523742	20/03/2023
Wg16		Flint	Two pieces of prehistoric flint were found on exposed ground.	Pre-historic	Good	Level ground								WG16-1; WG16-2; WG16-3; WG16-4; WG16_flint-1; WG16_flint-2	Amber	20	Survey	382967	524176	20/03/2023
Wg17	2735857	Find spot	Find spot of a barbed and tanged arrow-head from Mickie Fell, Lunedale, logged with HER	Pre-historic		Slope									Amber	20	HER	381000	523998	20/03/2023
Wg18	3243927	Hush	Hush, from HER database, depicted on historical OS maps.	Post-Medieval											Amber	10	Historical OS, LIDAR, HER	382398	523649	20/03/2023

Wg19	2304718	Hush, Dam	Hush with a dam at north end, from HER database, depicted on historical OS maps.	Post-Medieval											Amber	10	Historical OS, LIDAR, HER	382065	523210	20/03/2023
Wg20		Cairn	A currick is depicted in this area on historical OS maps from 1854.	Post-Medieval											Amber	10	Historical OS	382801	523047	20/03/2023
Wg21		Cairn	Boundary mound depicted on historical OS maps from 1854.	Unknown											Amber	10	Historical OS	387710	524547	20/03/2023
Wg22		Cairn	Boundary mound depicted on historical OS maps from 1854.	Unknown											Amber	10	Historical OS	387587	524348	20/03/2023
Wg23		Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897.	Post-Medieval											Amber	10	Historical OS	381173	521834	20/03/2023
Wg24		Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897.	Post-Medieval											Amber	10	Historical OS	381024	521950	20/03/2023
Wg25		Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Post-Medieval											Amber	10	Historical OS	380882	522048	20/03/2023
Wg26		Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897.	Post-Medieval											Amber	10	Historical OS	380724	522157	20/03/2023
Wg27		Boundary stone depicted on historical OS maps from 1854, 1892 and 1897	Boundary stone depicted on historical OS maps from 1854, 1892 and 1897.	Post-Medieval											Amber	10	Historical OS	380431	522354	20/03/2023
Wg28		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892.	Post-Medieval											Amber	10	Historical OS	380401	522443	20/03/2023
Wg29		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892.	Post-Medieval											Amber	10	Historical OS	380374	522629	20/03/2023
Wg30		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892.	Post-Medieval											Amber	10	Historical OS	380351	522813	20/03/2023
Wg31		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892.	Post-Medieval											Amber	10	Historical OS	380324	522983	20/03/2023
Wg32		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892.	Post-Medieval											Amber	10	Historical OS	380298	523164	20/03/2023
Wg33		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval											Amber	10	Historical OS	380288	523254	20/03/2023
Wg34		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892	Post-Medieval											Amber	10	Historical OS	380265	523405	20/03/2023
Wg35		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892.	Post-Medieval											Amber	10	Historical OS	380240	523585	20/03/2023
Wg36		Boundary stone	Boundary stone depicted on historical OS maps from 1854, 1859 and 1892.	Post-Medieval											Amber	10	Historical OS	380219	523727	20/03/2023

Appendix 3: Photo archive



C1-1



C1-2



C1-3



C3



C5



C6



C7



C8



C9



C10



C11-1



C11-2



C12



C13



C14-1



C14-2



C15-1



C15-2



C19



C23-1



C23-2



C24-1



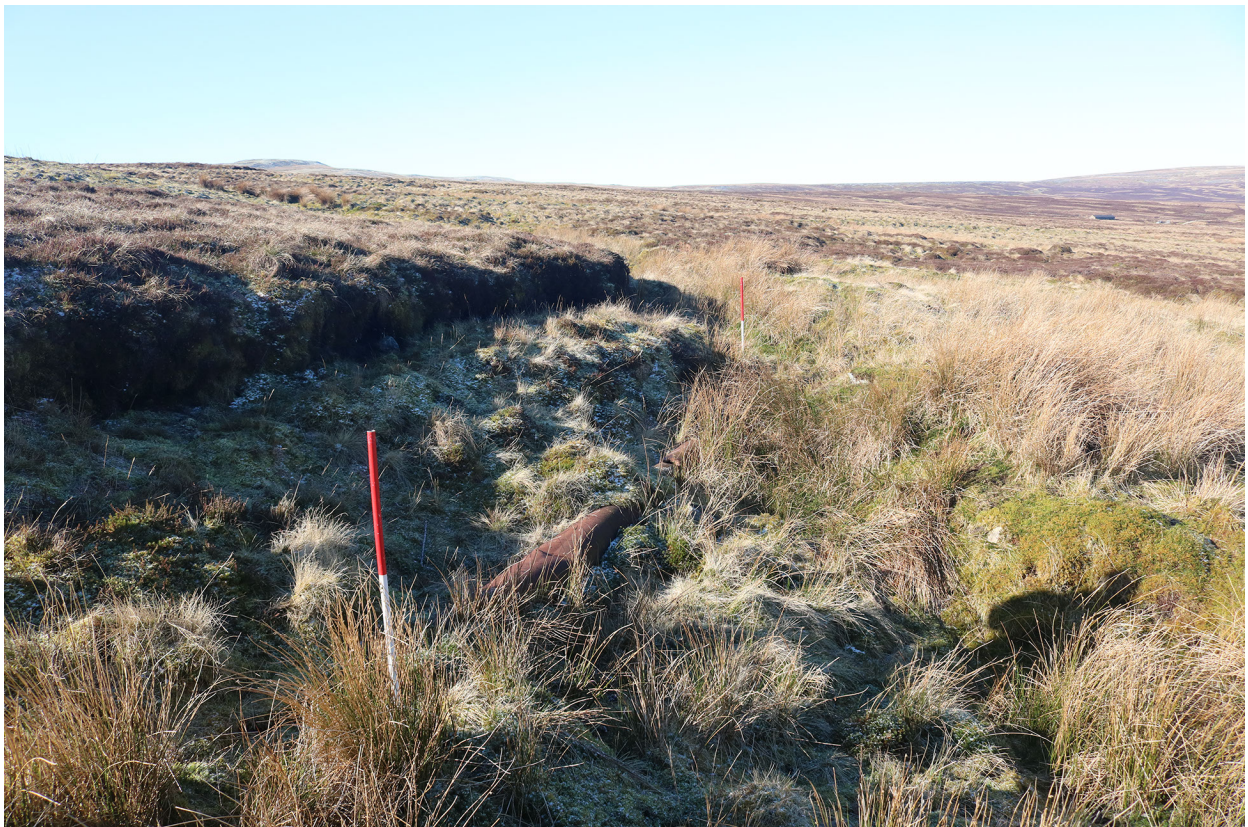
C24-2



C25-1



C25-2



C25-3



C26



C27



C28-1



C28-2



C29



C31



C32



C33



C34-1



C34-2



C34-3



C35



C74-1



C74-2



W1-1



W1-2



W2



W3-1



W3-2



W4-1



W4-2



W4-3



W4-4



W4-5



W4-6



W4-7



W4-8



W4-9



W4-10



W4-11



W5



W6-1



W6-2



W6-3



W6-4



W6-5



W6-6



W7-1



W7-2



W7-3



W7-4



W7-5



W8-1



W8-2



W8-3



W8-4



W8-5



W8-6



W8-7



W8-8



WG1-1



WG1-2



WG2



WG3-1



WG3-2



WG3-3



WG3-4



WG4



WG5



WG6-1



WG6-2



WG6-3



WG6-4



WG6-5



WG7-1



WG7-2



WG7-3



WG8



WG9-1



WG9-2



WG9-3



WG10-1



WG10-2



WG16-1



WG16-2



WG16-3



WG16-4



WG16_flint_1



WG16_flint_2

