



# Bright Water Landscape Partnership

## Legs Cross, Bolam

Written scheme of investigation for geophysical and  
photogrammetric survey

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Stuart Noon

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Written scheme of investigation for geophysical and  
photogrammetric survey

Prepared on behalf of:

Bright Water Landscape Partnership  
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## Purpose of document

This document has been prepared as a written scheme of investigation for a community geophysical and photogrammetric survey at Legs Cross, Bolam, County Durham, for the Bright Water Landscape Partnership and Durham County Council Archaeology. The purpose of this document is to provide the methods proposed for undertaking geophysical and photogrammetric survey at Legs Cross Bolam as part of the application for a Section 42 Licence for Survey on Scheduled Monuments and other Protected Places.

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## Project summary

OASIS ID	Digventu1-398440
DV project code and type	LEG20 geophysical and photogrammetric survey
HE National List Entry No.	1018638
National Grid Reference	NZ 32718 31055
County	County Durham
Title:	Bright Water Landscape Partnership Legs Cross, Bolam. Written scheme of investigation for geophysical and photogrammetric survey
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Reviewed by:	Josh Hogue DPhil Manda Forster MCIfA
Approval:	Brendon Wilkins MCIfA



## Social Value Act

DigVentures is a social enterprise dedicated to designing and delivering publicly focussed archaeology projects. We are constituted as a limited company, with a constitution reflecting the wider social, economic and environmental benefits of the projects we deliver.

## Carbon Footprint

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DigVentures is aiming to reduce its per capita carbon emissions.

## Acknowledgements

We'd like to begin with a sincere thank you to the Bright Water Landscape Partnership for commissioning us to undertake this exciting project. Particular thanks are due to the Bright Water team, Paul Black and Sarah Barton. In addition, we would like to acknowledge the support of David Mason, Principal Archaeologist and team at Durham County Council Archaeology Section and, in particular, the ongoing support and advice of Nick Boldrini, Historic Environment Record Officer, Durham County Council and Don O'Meara, Historic England Science Advisor for the North East.

The project will be managed by DigVentures. Stuart Noon will manage the project with Lisa Westcott Wilkins, Managing Director, acting as Project Executive.



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# 1 INTRODUCTION AND SCOPE

## 1.1 Project background

- 1.1.1 DigVentures has been appointed by the Bright Water Landscape Partnership and Durham County Council Archaeology Section (DCCAS) to prepare a Written Scheme of Investigation (WSI) for a geophysical and photogrammetric survey to be undertaken at Legs Cross, Bolam, County Durham, (hereafter 'the Site') (Figure 1). The programme of works is part of a wider scheme of community heritage and engagement managed by the Bright Water Landscape Partnership, with archaeological works outlined and agreed with David Mason, Principal Archaeologist of DCCAS.
- 1.1.2 The Bright Water Landscape Partnership is a Landscape Partnership Scheme, led by Durham Wildlife Trust and Durham County Council, and supported by the National Heritage Lottery Fund. The Partnership has come together with Durham County Council Archaeology Section (DCCAS) and developed a range of community-based archaeological research projects that will investigate and celebrate the natural and built heritage of the Bright Water area and re-connect people with the amazing landscape on their doorstep. The Bright Water Landscape Partnership has appointed DigVentures and the Project Team to deliver several important outputs and outcomes of the Built Heritage: Ancient Environment and Early Settlement Project (Lot 1), and Built Heritage: Ecclesiastical (Lot 2), specifically to deliver a series of professionally-led, volunteer projects designed to engage people with the unique built heritage of the Bright Water catchment.
- 1.1.3 The site of Legs Cross, Bolam, is included within Lot 2 of the project programme, with the focus of investigation being the mid-9th century carved stone cross situated 50m south of the crossroads of the modern B6275 and the Roman road of Dere St (HE List Entry: 1018638). The immediate surroundings of the site show indications of an extant portion of the Roman road, as well as a possible Roman ladder settlement and an Iron Age settlement related field system.
- 1.1.4 Geophysical and photogrammetric survey of Legs Cross, including its immediate surroundings, has the potential to provide insight into changing cultural identities, roadways and boundaries, and the impact of the church on settlement and landscape development in the medieval period. New evidence will provide data and information to inform understanding of human impacts within the Bright Water landscape. The geophysical and photogrammetric survey will be undertaken with community volunteers by Met Consultancy Group and DigVentures under the guidance of David Mason (DCCAS). The survey provides opportunity to engage the local community with their heritage and provide training in heritage skills. After completion of the geophysical survey it is intended that anomalies identified as potential archaeological features identified will be investigated by targeted excavation as part of a second stage in the research investigation.



- 1.1.5 The Site is a Scheduled Monument under the Ancient Monuments and Archaeological Areas Act 1979 (Historic England List Entry No. 1018638). This WSI forms part of the requirements for a Section 42 Licence for Survey on Scheduled Monuments and other Protected Places in accordance with Historic England requirements (Historic England 2018).

## 1.2 Scope of document

- 1.2.1 This WSI sets out how the archaeological contractor will implement the geophysical survey and the strategy and methodology of the geophysical and photogrammetric survey. In format and content, it conforms with current best practice and to the guidance outlined in the Management of Archaeological Research Projects in the Historic Environment (Historic England 2015), the North East Regional Research Framework for the Historic Environment (NERRF – 2006), English Heritage (2008), ClfA Standards and guidance (2014), the Europae Archaeologiae Consilium (EAC) Guidelines for the Use of Geophysics in Archaeology (Schmidt et al. 2016) and Photogrammetric Applications for Cultural Heritage (Historic England 2017), Work will also be undertaken to the DCCAS Standards for Archaeological Work in County Durham and Darlington (March 2017).
- 1.2.2 This WSI is to be submitted to DCCAS for approval prior to the commencement of the geophysical and photogrammetric survey, and to Historic England, who will monitor works are undertaken in line with the conditions of the Section 42 license.

## 1.3 Site location, topography and geology

- 1.3.1 The area covered by the Bright Water Landscape Partnership extends over 200km<sup>2</sup> of lowland County Durham and Darlington, focusing on the River Skerne from Hurworth Burn reservoir in East Durham to South Park in Darlington. The project area includes Great Aycliffe, Sedgfield, Bishop Middleham, Fishburn, Heighington, Brafferton, Barmpton and Darlington. The Bright Water landscape was formerly dominated by wetlands but many of them have been lost over the past 200 years.
- 1.3.2 Legs Cross, Bolam (Lot 2b) is located on the west side of the B6275, which overlies the line of the Roman road, Dere Street, running north from Piercebridge, just south of Royal Oak and east of Houghton-le-Side, NZ 20712 22501. The Site is a Scheduled Monument under the Ancient Monuments and Archaeological Areas Act 1979 (Historic England List Entry No. 1018638). It is presumed that the stone cross is located on or close to its original site where it was taken and re-erected shortly after the First World War by Bishop Auckland Antiquarian Association.
- 1.3.3 The monument lies within an area of sedimentary bedrock of the Stainmore Formation, formed 319-329 million years ago during the Carboniferous period. The bedrock constituents vary from sandstone, mudstone and siltstone, all resulting from the area being previously dominated by swamps, estuaries and deltas. These sedimentary rocks are fluvial, palustrine and shallow-marine in origin. They are detrital, forming deposits reflecting the channels, floodplains and deltas of a river in a coastal setting (with periodic inundation from the sea). Overlaying the bedrock are sedimentary till deposits of glacial origin, formed during the Devensian during the Quaternary

period, in this case up to 2 million years ago. Created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary (BGS, <http://mapapps.bgs.ac.uk>).

## 1.4 Research background

- 1.4.1 Visible remains at the site include the shaft, socle and an earth mound related to the early medieval cross and in the same field and the adjacent field to the east, there are indications from LiDAR 1m relief model data and aerial photographs from 1945 and 2005 of a possible extant portion of Dere Street Roman road, a settlement related Iron Age field system, and a possible Roman ladder settlement associated with a Roman milestone (<https://brightwatergis.com/>).((Google Earth Pro)).
- 1.4.2 Legs Cross is considered a nationally important monument; it survives in good condition and is an excellent example of an early medieval boundary cross reusing the site of a Roman milestone. A foundation stone for a Roman milestone which used to lie next to the monument is no longer evident (Historic England List Entry 1018638). The location of the site itself is alongside Dere St Roman road and may well be associated with the boundary of the Anglo Saxon estate of Gainford (David Petts, pers comm).
- 1.4.3 The cross is one of the very few examples of this type of monument that is considered to still be in situ, or close to its original setting and offers a rare opportunity to assess and characterise the cross and the nature of its immediate surroundings. This type of 'High cross', frequently heavily decorated, were erected in a variety of locations in the eighth, ninth and tenth centuries AD (Historic England, List Entry 1018638). High crosses served a variety of functions, some being associated with established churches and monasteries and playing a role in religious services, some acting as cenotaphs or marking burial places, and others marking routes or boundaries and acting as meeting places for local communities. The carved ornamentation was often painted in a variety of colours though traces of these pigments now survive only rarely. Several distinct regional groupings and types of high cross have been identified, some being the product of single schools of craftsmen. Identifying native artistic styles from those of Viking settlers being one of the aims for this aspect of work given the mid-9th century date. These crosses provide important insights into art traditions and changing art styles during the early medieval period, into religious beliefs during the same era and into the impact of the Scandinavian settlement of the north of England.
- 1.4.4 Using non-invasive geophysical survey techniques to record below ground features will contribute to the understanding of this monument in its immediate landscape setting. Our aim is to identify potential archaeological features associated with Legs Cross or the Roman road, or which may relate to other archaeological periods. The results of geophysical survey will inform research aims and objectives for a second stage of archaeological fieldwork, which would ground truth anomalies through a phase of archaeological excavation.



1.4.5 The photogrammetric survey will create a digital model of the cross and its immediate context. These results will be published online for all to access; enabling members of the public to view the site interactively in 3D. The photogrammetric work at Legs Cross will contribute to the understanding of the monument, recording the decorative motifs and their current condition, which are inevitably being lost through surface erosion. The results of photogrammetry can be used to demonstrate the stability of the monument's surface through comparison with records of the stone in 1907 (Wooler) and 1984 (Cramp). The geophysical and photogrammetric survey will also provide opportunities for community training and skills development and contribute to the future management and research at the site.

## 1.5 North-East Regional Research Framework

1.5.1 All the proposed community archaeology projects undertaken as part of the Bright Water Built Heritage Lots have provided an opportunity to offer the community knowledge, transferable skills and an identity based in landscape commonality. In addition, they provide an excellent opportunity to contribute new research to our understanding of past human activity in the region. Addressing the research themes and questions posed in the North-East Regional Research Framework (NERRF, Petts and Gerrard 2006), as well as those raised more recently as a result of developer-led archaeology and academic research will ensure maximum impact and legacy for the Bright Water Landscape Partnership and Durham County Council Archaeology Section in the archaeological sphere.

1.5.2 Geophysical and photogrammetric surveys at Legs Bolam, address some of the following themes highlighted within the NERRF; Roman transport and communication - Being critical to the expansion of and success of settlement in the North East in more recent times, industry and transport was likely an important aspect of the region since at least Roman times. Dere Street is the only Roman road known to run to the entire breadth of the region, and a cropmark in the fields at Legs Bolam has the potential to survive as an intact section (Petts and Gerrard 2006, p. 46-47).

1.5.3 Roman settlement, military infrastructure and native communities – Roman military infrastructure was unsurprisingly, closely linked to the road network within County Durham. Archaeological research across much of the North-East has been dominated by the military, civilian remains have not been studied in anything like the same detail and significant variations in regional patterns are still to be accounted for. Currently there is little certain evidence for civilian settlement between the Wear and the Tyne, though there are cropmarks for sites of probable Late Iron Age or Roman date. Cropmarks in the fields at Legs Bolam indicate a possible settlement related Iron Age field system and Roman ladder settlement associated with Dere Street Roman road. Apart from a few villa sites, very few significant civilian settlements have been excavated between the Tees and the Tyne and our appreciation of the relationship between the Roman military and the native and civilian populations of the region should be improved (Petts and Gerrard 2006, p. 47-55; 149).

1.5.4 Early religion ecclesiastical structures – Christianity is a major research topic in the study of the early medieval North-East. Religious belief and ritual activity permeated all aspects of life in the historic North-East, that continues to resonate strongly and the



importance of the research and survey of wayside crosses has been highlighted. There is a huge potential for the future study of the early medieval period in the region and in particular further research is needed into the layout of ecclesiastical sites, and their impact in the wider landscape. (Petts and Gerrard 2006. p. 155, 161, 227-228).

## 2 AIMS AND OBJECTIVES

2.1.1 The overarching aim of the archaeological investigation is to define and characterise the physical extent and character of the Legs Bolam site through a programme of non-intrusive investigation (geophysical and photogrammetric survey), obtaining baseline data that will facilitate its future management, research, presentation and enjoyment in line with recommendations made in the North East Regional Research Framework (Petts and Gerrard 2006).

### 2.2 Aim 1 – Identify the physical extent and character of the archaeological remains on the site.

2.2.1 This aim is addressed by a programme of geophysical (magnetometry electromagnetic conductivity) of the area surrounding the cross, and photogrammetry survey of the actual cross. These approaches will add to our understanding of the site by addressing the following questions:

- Q1: Can any sub-surface archaeology be identified by remote survey associated with the Roman milestone and early medieval cross?
- Q2: Can we identify any phasing in the remote sensing anomalies indicative of an extended period of use?
- Q3: Can we identify any inscriptions and decorative motifs (interlace patterning) surviving and differentiate any native artistic styles from those of Viking settlers?
- Q4: Can we make any links to the relationship between the cross and early medieval land boundaries?

## 3 METHODOLOGY

### 3.1 Geophysical survey methodology

3.1.1 All work will be completed to specifications provided by English Heritage (2008), ClfA (2014), Historic England (2015), the NERRF (Petts and Gerrard 2006), and the EAC (Schmidt et al. 2016), using the equipment and methods detailed below.

3.1.2 The geophysical survey will be undertaken on the 26th and 27th of October 2020 with a team of community volunteers, who will be trained in the use of the equipment as well as carrying out data collection for use in final reporting. The geophysical survey and training will take place over two days. Two sessions on each day will be offered for community participation; 9.30am-11.30am and 1.30pm-3.30pm. Each two-hour session will begin with an introduction to geophysical survey, then participants will undertake data collection in their field under supervision.



- 3.1.3 The equipment used for data collection (see details below) has been selected because it allows live viewing of collected data, as such those collecting the geophysical survey data will see the results of their work immediately and will be talked through interpretation of survey results using their own data. Each session could accommodate up to 4 community volunteers. The geophysical methods that will be used and demonstrated to volunteers during this survey will be magnetic gradiometry and electromagnetic conductivity.
- 3.1.4 An area of 2.5ha will be subject to geophysical magnetic survey at the site (Figure 2). The survey will be focused on three selected areas of two fields to the west and east of the B6275 and 50m south of a crossroads with a minor road largely hidden behind a hedge, just below the brow of a hill. The three targeted areas are:-
- Area 1 – c.90m x 90m focusing on an area the immediately west of the early medieval cross incorporating a linear crop mark suspected to be a surviving portion of Dere Street Roman Road associated with the now missing Roman milestone.
  - Area 2 – c.175m x 80m focusing on an area to the south west of the cross on a cropmark suspected to be a potential Roman ladder settlement.
  - Area 3 – c.80m x 70m focusing on the field to the east of the cross targeting on a potential settlement related Iron Age field system.
- 3.1.5 A Bartington Grad 601-2 magnetic gradiometer with data logger will be used for the detailed gradiometer survey. A magnetic gradiometer detects sensitive changes in the earth's magnetic field caused by the relative presence or absence of enhanced magnetic material. Over and above its ability to detect ferrous metals, the sensitivity of the instrument allows it to detect materials that have become magnetically enhanced due to human activity. This technique is proven to be able to identify cut and filled features such as pits and ditches; burnt or fired features such as hearths, kilns, clay tile etc.; and can also detect stone features (usually as areas of relative negative enhancement. Readings are taken, on the 100nT range (0.1nT sensitivity), at 0.25m intervals on zig-zag traverses 1m apart within a 20m or 30m grid. This equates to either 1600 or 3600 readings per grid. The instrument is checked for electronic and mechanical drift at regular intervals and calibrated as necessary. Subject to time and budget constraints, there may be a possibility to re-examine areas of interest at a higher survey resolution (for example 0.5m x 0.125m).
- 3.1.6 The Bartington Grad601-2 is a dual sensor instrument, incorporating two Grad-01-1000 gradiometers set at a distance of 1m apart. The sensors within each gradiometer are also spaced 1m apart, rather than the 0.5m found in most fluxgate gradiometers. The configuration of the Grad601-2 provides an increased depth penetration and weaker anomalies are detected with greater resolution, as well as reducing both the time taken and distance walked compared to a conventional fluxgate gradiometer survey.
- 3.1.7 The Grad-01-1000 sensor is a high-stability fluxgate gradient sensor with a resolution of 0.1nT/m when used on the 100nT/m range and 1nT when used on the 1000nT range. The exceptional temperature stability of this sensor ensures minimal drift during surveys and reduces the need for adjustment and consequently survey time. The data



will be downloaded to Bartington's Grad601 download software and then imported into Geoplot v4.0 (Geoscan Research) in XYZ format for data processing and display. The gradiometer data will be presented in the report in X-Y trace and shaded plots.

- 3.1.8 Met Geo Environmental set-out and tie-in all geophysical survey grids using either a total station (TCR1205) or GPS system (Topcon Hiper SR or a SmartRover system, usually operated in Real-Time Kinematic mode) in conjunction with a standard tape measure. The main grid points are set out electronically, usually at 60m intervals, and intermediate points are established using tapes as required. The site grid is tied-in to semi-permanent survey stations. These consist of survey nails, where the ground conditions allow them to be inserted, or wooden stakes with a nail in the top.
- 3.1.9 The survey grid is usually aligned to best fit in with the site boundaries and is therefore usually in a local co-ordinate system, with the corners then tied-in to OS coordinates using GPS. Each grid point set-out electronically is usually to an accuracy of at least  $\pm 50\text{mm}$ . It is possible to achieve higher accuracy than this by increasing the time spent at each point; however, this level of accuracy in establishing grid points is more than adequate for the majority of geophysical surveys.
- 3.1.10 Where GPS positioning of data grids is not possible, Met Geo Environmental will collect sufficient topographic detail to allow the survey grid to be superimposed onto existing digital map data, such as Ordnance Survey mapping. Alternatively, a detailed topographic survey of the site can be carried out on which the survey grid can be related to a high degree of accuracy.
- 3.1.11 Any anomalies identified within the data will be marked and compiled onto a geo-referenced drawing so that their characteristics can be visualised and displayed with reference to other features and datasets. The selection of which EM instrument that is most suitable for the electromagnetic conductivity survey, and most likely to meet the surveys objectives depends on the depth of the target, as each instrument has a different depth of penetration associated with it.
- 3.1.12 The CMD-Mini Explorer has three receiver coils at various fixed separations, and two dipole orientations available, which vary the effective depth of exploration. The CMD Explorer is larger instrument that has an increased depth of exploration. For archaeological purposes the CMD MiniExplorer is generally the instrument of choice due to the improved resolution and shallow depth of investigation.
- 3.1.13 The range of the instrument is up to 1000 mS/m for apparent conductivity, with a resolution of 0.1 mS/m. The in-phase ratio has a range of  $\pm 80$  ppt (parts per thousand), and a resolution of 10 ppm (parts per million).

## 3.2 Photogrammetric methodology

- 3.2.1 All work will be completed to specifications provided by English Heritage (2017) Photogrammetric Applications for Cultural Heritage and the NERRF (Petts and Gerrard 2006), using the equipment and methods detailed below.
- 3.2.2 The photogrammetric survey will be undertaken on the 28th of October 2020 with a team of community volunteers, who will be trained in the use of the equipment as well



as carrying out data collection for use in final reporting. The photogrammetric survey and training will take place over one day. Two sessions will be offered for community participation; 9.30am-11.30am and 1.30pm-3.30pm. Each two-hour session will begin with an introduction to photogrammetric survey, then participants will undertake data collection in their field under supervision. The equipment used for data collection (see details below) has been selected because it allows live viewing of collected data, as such those collecting the photogrammetric survey data will see the results of their work immediately and will be talked through interpretation of survey results using their own data. Each session could accommodate up to 4 community volunteers.

- 3.2.3 The photogrammetric survey will be targeted on the early medieval cross situated in the north east corner of the field at the west focused on the socle and shaft which are composed of sandstone and stand to a collective height of 2.6m. The shaft is 1.7m tall and tapers towards its top. The base of the shaft is 0.3m east-west and 0.4m wide north-south. On the east face of the shaft the straight-line mouldings which separated panels of interlacing are discernible. The shaft is cemented onto the socle. The socle is 0.9m high, 0.6m wide east- west by 0.8m north-south and is cemented at its base (<https://historicengland.org.uk/listing/the-list/list-entry/1018638>).
- 3.2.4 The survey will utilize Agisoft PhotoScan 3D Modelling software to detect the feature points of the structure, and match these in different images to create a point cloud. The camera positions will be calculated automatically by the software and a dense reconstruction or geometric model will be built to create a DSM. The resulting DSM can be manipulated for viewing from any angle using a variety of artificial light and shading techniques to highlight certain features or overlaid or draped with the original photographs for true colour representation. All models will be georeferenced using a minimum of eight coded targets for each model, surveyed into the National Grid using a robotic total station.
- 3.2.5 Images will be captured perpendicular to the structure using telescopic mounted cameras, to deliver optimum results requiring little or no rectification. All images are taken with at least a 16 mega pixel Nikon D7000 / Canon 750D digital camera (unless other cameras are specified) with a variety of standard and other lenses and are captured in RAW format for later processing into high resolution JPG and TIF files and downloaded directly on to the hard disk of the laptop.

## 4 REPORTING

### 4.1 Geophysical and photogrammetric survey report

- 4.1.1 In accordance with the Section 42 licence, a full report will be submitted on completion of the works. The report, presenting the results of the survey and their interpretation, will be produced within three months of the completion of the survey and will include:



- The name(s) of the investigators / contractors, title, date, report reference number and client name;
- A summary of the results;
- Introduction - site location including a plan demonstrating that the survey has been accurately geo-located on the ground (minimum scale 1:2500), OS grid reference, SM/NHLE number, rationale, site history (summary of past work, HER records, land use history), site description (geology and soils, ground conditions and land use at time of survey), and setting out the survey objectives;
- Methodology explaining the techniques used, equipment configurations, sampling intervals, methods of data capture and processing, variables used for the above and method of data presentation;
- Greyscale plots of minimally enhanced data (raw data must be retained and archived) and processed data (with details) at minimum scale of 1:1000; Where appropriate X-Y trace plots of improved magnetic data or a sample thereof may be necessary to support the specific interpretation of anomalies identified from greyscale images. Plots should be appropriately sized for presentation, including use of A3 plots where necessary;
- Ortho photographs of the early medieval cross with links to the 3D model;
- Description and interpretation of results, including interpretative plans/diagrams (minimum scale 1:1000); and,
- Conclusions including an assessment of the achievement (or not) of the survey objectives, a summary of the results, implications of the survey, discussion of research value, and recommendations (if appropriate) for any further work.
- The complete questionnaire enclosed with the Section 42 license will be completed and appended to the survey report.

## 5 ARCHIVING

- 5.1.1 An OASIS online record has been initiated (digventu1-398440) and is included in this WSI (Appendix 2). Where positive results are drawn from the project, a summary report will also be submitted to DCCAS. On approval, the report will be submitted in hard copy and in digital copy to the DCC HER and to Historic England, with a copyright licence granted to Durham County Council and Historic England to use the report for the purposes of the HER. A final copy of the report will be uploaded to OASIS.

## 6 PROJECT MANAGEMENT AND STAFFING

### 6.1 Quality and code of practice

- 6.1.1 DigVentures is a Registered Organisation with the Chartered Institute for Archaeologists. All senior managers are MCIfA registered. The company endorses the Code of Practice and the Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology of The Chartered Institute for Archaeologists.



- 6.1.2 All core staff employed by DigVentures are appropriately qualified ClfA members and employed in line with The Chartered Institute for Archaeologists Codes of Practice. DigVentures operates a Project Management System. All projects are undertaken under the direction of the Project Manager who is responsible to a Section Head, who ensures the maintenance of quality standards within the organisation. The Managing Director has ultimate responsibility for all of the company's work.
- 6.1.3 The programme of geophysical and photogrammetric survey, with community training, will be provided by Met Consultancy Group with DigVentures. DigVentures will manage the project and will deliver all community participation and evaluation aspects.

## 7 INSURANCE, HEALTH AND SAFETY

### 7.1 Policy and risk assessment

- 7.1.1 Health and safety considerations will be of paramount importance in conducting all fieldwork. Safe working practices will override archaeological considerations at all times. DigVentures shall undertake the works in accordance with Durham County Council Archaeology Section Health and Safety requirements and Health and Safety Plan. This document should take account of any design information pertaining to above ground hazards such as buildings and structures and below ground hazards such as services, utilities and infrastructure. Risk Assessments should also consider below ground contaminants such as unexploded ordnance.
- 7.1.2 DigVentures will ensure that all work is carried out in accordance with its company Health and Safety Policy, to standards defined in The Health and Safety at Work etc. Act 1974, and The Management of Health and Safety Regulations 1992, and in accordance with the SCAUM (Standing Conference of Archaeological Unit Managers) health and safety manual Health and Safety in Field Archaeology (1996). Trench excavation and design shall conform to Health and Safety legislation, incorporating current best engineering practice where possible.
- 7.1.3 DigVentures holds public liability insurance (£5,000,000), employer's liability insurance (£10,000,000) and professional indemnity insurance (£1,000,000).

## 8 BIBLIOGRAPHY

British Geological Survey, accessed 01/1/19: <http://www.mapapps.bgs.ac.uk>

ClfA. 2014. Standard and Guidance for archaeological geophysical survey, Chartered Institute for Archaeologists

Cramp, R J, The Brit Acad Corpus of Anglo-Saxon Sculpture in England Volume 1 pt1, (1984), 122



Chambers, Robert 1830. The Life of King James the First: In Two Volumes, Volume 2. Constable.

DigVentures 2019. Bright Water Landscape Partnership. Lot 2: Built Heritage: Ecclesiastical. Project Design for a Community Archaeology Project.

English Heritage. 2008. Geophysical survey in archaeological field evaluation, Research and Professional Services Guideline 2nd Ed, Swindon: English Heritage

Historic England. 2015. Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide

Historic England. 2017. Photogrammetric Applications for Cultural Heritage

Historic England, 2018. Information for Applicants of Section 42 Licences

Petts, D. and Gerrard, C. 2006. Shared Visions: The North East Regional Research

Schmidt, A., Linford, P., Linford, N., David, A., Gaffney, C., Sarris, A. and Fassbinder, J. 2016. EAC Guidelines for the Use of Geophysics in Archaeology. Questions to Ask and Points to Consider. EAC Guidelines 2

Wooler, E, 'Proceedings of the Society of Antiquaries of Newcastle-on-Tyne' in *Legs Cross*, , Vol. Ser.3, 3, (1907), 71 – 72

Other sources

<https://historicengland.org.uk/listing/the-list/list-entry/1323020>

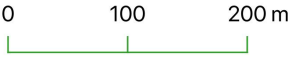




Figure 1 - Site location



Figure 2 - Proposed Survey Areas





## Legs Bolam – Geophysical and Photogrammetric Survey 2020

### Risk Assessment Method Statement

	Doc. ref. no.	Status	Approval	Date	Comments
Original	DV_Legsbolam_20 RAMS	Final	Stuart Noon Brendon Wilkins	04/09/20	Completed following initial walk over assessment
Revisions					

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## 1 PURPOSE OF THIS DOCUMENT

The purpose of this method statement is to provide detailed guidance on a safe system of work for the employees. The method statement is based on a task specific risk assessment using identified hazards, the likelihood of the hazard occurring and the severity of the consequences. This risk assessment is attached. As conditions may change on site this RAMS may require amendment during the course of work to reflect the conditions at the time. All personnel involved in this operation must be briefed on the content of this RAMS and associated reference documents before commencement of the work.

## 2 METHOD STATEMENT

1	Supervisors	<b>Name</b>	<b>Position</b>	<b>Contact Details</b>	<b>First Aider?</b>
		Chris Casswell	Site Director, DV	07931 562050	Yes
2	Key personnel	<b>Name</b>	<b>Position</b>	<b>Contact Details</b>	
		Lisa Westcott	Managing Director, DV	07787 188184	
		Wilkins	Project Director, DV	07581 562490	
		Brendon Wilkins	Director of Operations,	07834 044060	
		Manda Forster	DV Project Manager	07492 877380	
		Stuart Noon	DV Community	07411453166	
		Nat Jackson	Archaeologist, DV Community	07798 753287	
		David Wallace	Archaeologist, DV Community	07768169940	
		Ben Swain	Archaeologist, DV Community	0783349756	
Johanna Ungemach	Archaeologist, DV				
4	Working Hrs	0900 to 1700, Monday to Friday.			
5	Plant /Tools/ Vehicles	Plant: None Equipment: Hot water sinks and generator Tools: Welfare, toilets, Bartington Grad 601-2 magnetic gradiometer with data logger, CMD-Mini Explorer, cameras, measuring tapes and canes Vehicles: Minimum number of vehicles required to transport staff and participants to site each day			

6	Specialist Training Required	N/A			
7	Personal Protective Equipment	Head Protection		Skin Protection:	
		Waterproofs:	x	Specialist Footwear	x
		Ear Protection:		Flotation Aids:	
		Respiratory	x	Harnesses:	
		Hand Protection	x	Other:	
		If other, specify:	Waterproof clothing in inclement weather; head protection if required; face masks or visors to be worn at all times		
8	Permits Required	None			
9	COSHH Assessment	N/A			
10	Environmental				
11	Sequence of work				
<p><b>COVID-19 pandemic</b></p> <ul style="list-style-type: none"> <li>• Stay alert.</li> <li>• No unauthorized access to the site.</li> <li>• Staff and participants are to use the Activity Zone for breaks or return to own vehicles..</li> <li>• Staff to keep 2m apart wherever possible. When not possible consider whether the task is necessary.</li> <li>• Wear face masks at all times and gloves where appropriate to minimise potential transmission.</li> <li>• Use hand washing facilities and hand sanitizer immediately before and after leaving the trench and site.</li> <li>• No tool sharing. Individuals are responsible for cleaning them at the end of every day.</li> <li>• PPE checks on daily basis</li> <li>• No interactions with members of the public.</li> <li>• Staff and participants will drive to the site in their own vehicles.</li> </ul> <p><b>Mobilisation</b></p> <ul style="list-style-type: none"> <li>• Park away from site.</li> </ul> <p><b>Survey site checks</b></p>					

- Check access/egress points place signs where appropriate.
- Establish safe access/egress points into the fields.
- Inspect the survey area visually to identify unforeseen hazards. Where necessary additional safety measures may be required.

### **Survey**

- Briefing to all staff and participants outlining tasks for the day and updates to the risk assessment where appropriate.
- All tasks to be carried out in accordance with the agreed safety method statements and any instruction issued by Durham County Council Council
- Covid 19 PPE must be worn at all times.
- Survey will be undertaken by area.

### **Community Engagement**

- There will be no direct access or interaction between the site team and members of the public.
- There will be no public tours
- Signs will be placed on perimeter fencing at the survey. They will contain basic information and links to online videos detailing the work being undertaken.

### **Demobilisation**

- Prior to leaving the site all safety measures installed by DigVentures are to be removed together with any works debris.
- Removal of staff and equipment.

### 3 RISK ASSESSMENT

<b>Site Address:</b>	W L Robinson. Prospect Farm, Bolam DL22UP Darlington. County: Durham,	<b>RA completed by:</b>	Stuart noon
		<b>Date:</b>	04th September 2020
		<b>Site visit:</b>	20th August 2020
<b>Monitors:</b>	Brendon Wilkins, DigVentures Ltd	<b>Documentation:</b>	Written Scheme of Investigation

*Frequency: 1 = A highly improbable occurrence; 2 = A remotely possible but known occurrence; 3 = An occasional occurrence; 4 = A fairly frequent occurrence; 5 = A regular occurrence; 6 = Almost a certainty*  
*Severity: 1 = Negligible injuries; 2 = Minor injuries; 3 = Major injuries; 4 = Single fatality; 5 = Multiple fatalities; 6 = Multiple fatalities including persons beyond site*  
*Risk Rating: 1 – 4 = tolerable; 5 – 7 = moderate; 8 – 11 = substantial; 12+ intolerable (Risk Rating = Frequency x Severity)*



<p><b>Operation/Task:</b></p>	<p>Geophysical and photogrammetric survey</p>		<ul style="list-style-type: none"> <li>DV_LegsBolam20_WSI_V1.0</li> </ul>
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*Frequency:* 1 = A highly improbable occurrence; 2 = A remotely possible but known occurrence; 3 = An occasional occurrence; 4 = A fairly frequent occurrence; 5 = A regular occurrence; 6 = Almost a certainty  
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*Risk Rating:* 1 – 4 = tolerable; 5 – 7 = moderate; 8 – 11 = substantial; 12+ intolerable (Risk Rating = Frequency x Severity)

**Notes:**

All staff and to read this document (in conjunction with the Written Scheme of Investigation) before entry on to site, and sign-off the Briefing Log once induction from the Health & Safety Supervisor is completed.

*Frequency: 1 = A highly improbable occurrence; 2 = A remotely possible but known occurrence; 3 = An occasional occurrence; 4 = A fairly frequent occurrence; 5 = A regular occurrence; 6 = Almost a certainty*  
*Severity: 1 = Negligible injuries; 2 = Minor injuries; 3 = Major injuries; 4 = Single fatality; 5 = Multiple fatalities; 6 = Multiple fatalities including persons beyond site*  
*Risk Rating: 1 – 4 = tolerable; 5 – 7 = moderate; 8 – 11 = substantial; 12+ intolerable (Risk Rating = Frequency x Severity)*

**Remember – Please report anything that is or seems to be unsafe to DigVentures Staff immediately.**

*Frequency: 1 = A highly improbable occurrence; 2 = A remotely possible but known occurrence; 3 = An occasional occurrence; 4 = A fairly frequent occurrence; 5 = A regular occurrence; 6 = Almost a certainty*  
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*Risk Rating: 1 – 4 = tolerable; 5 – 7 = moderate; 8 – 11 = substantial; 12+ intolerable (Risk Rating = Frequency x Severity)*

Hazard/Risk	Risk Rating			Control Measures	Residual Risk			Responsibility	Monitor
	F	S	RR		F	S	RR		
<b>SURVEY</b>									
<b>Geophysical and photogrammetric</b>									
Rough Ground, slippery/muddy paths and trip hazards e.g. survey lines	4	2	8	Survey team advised to wear appropriate footwear..	1	2	2	DV	DV
				Survey team not to wander around alone.				DV	DV/Client
				Heavy lifting to be avoided where possible. If unavoidable then all team to receive appropriate training.				DV	DV/Client
				Survey team advised to work within their physical limits.				DV	DV
				Survey team advised the needs of the survey are not so great that they need to risk their safety.				DV/Client	DV/Client
Contact with hazards including plants e.g. nettles, thorns, poisonous plants and confrontation with members of the public/dogs/livestock	3	4	8		1	2	2		
				Warn participants about the presence of hazardous plants, site survey away from brambles nettles etc				DV	DV/Client
				No persons other than DV, Client or curatorial staff to enter the survey area at any time and advised to alert landowners when they are coming, negotiate access, and when they are leaving, to ensure they have permission to be on site					
				Warn not to lick fingers, wash hands before eating.					
				Avoid contact with loose dogs where possible, not to enter any fields with livestock in and only to survey the fields which we have clear permission to enter.					

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Hazard/Risk	Risk Rating			Control Measures	Residual Risk			Responsibility	Monitor
<b>ENVIRONMENT</b>									
<b>COVID-19</b>									
Airborne transmission of virus	2	4	8	Anyone displaying symptoms of coronavirus will be instructed not to attend work and follow guidelines.	1	4	4	DV/Client	DV/Client
				2m distance to be maintained between people.					
				Rearrange tasks to enable them to be done by one person, or by maintaining social distancing measures (2m).					
				Wear face masks or visors at all times,					
				There will be no public access or tours of the survey areas					
Surface transmission of virus (cross-contamination of surfaces)	2	4	8	Provide facilities to allow staff and visitors to wash their hands for 20 seconds using soap and water or hand sanitiser (minimum 60% alcohol based) when entering and leaving the site.	1	4	4	DV/Client	DV/Client
				Enhance cleaning regimes for commonly used areas and surfaces, such as access and egress points, welfare and toilet facilities.				DV	DV/Client
				Where drivers are required to exit their vehicle, they should wash or sanitise their hands before handling any materials.				DV	DV
				Survey team should use their own vehicles to get to site.				DV	DV
				Sanitise equipment before and after every use and wear gloves to minimise potential transmission.				DV	DV
				Any gates or gateposts which are frequently used by the survey team will be sanitised after use.				DV	DV
<b>General Measures</b>	-	-	-		-	-	-		
General measures for implementation to maximise any reduction in risk rating.				A mobile phone will be available at all times for use in emergencies.				DV/Client	DV/Client

Frequency: 1 = A highly improbable occurrence; 2 = A remotely possible but known occurrence; 3 = An occasional occurrence; 4 = A fairly frequent occurrence; 5 = A regular occurrence; 6 = Almost a certainty  
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Hazard/Risk	Risk Rating			Control Measures	Residual Risk			Responsibility	Monitor
				Anything that is or seems to be unsafe will be reported to the DV project officer immediately.				DV	DV/Client
				Appropriate PPE (overalls, gloves, respirators etc.) to be worn at all times where contaminated ground is anticipated or suspected.				DV	DV/Client
				Washing facilities to be provided in accordance with H&S requirements. All staff and participants to use such prior to eating.				DV	DV
				A first aid kit will be available to DV staff and others at all times (i.e. in the messing area and vehicles). A qualified First aider will be on site at all times and the team will be aware who this individual is.				DV	DV
<b>Extreme weather conditions</b>	<b>3</b>	<b>4</b>	<b>12</b>		<b>1</b>	<b>4</b>	<b>4</b>		
Hot weather working (i.e. dehydration, sun burn, sun stroke etc.)	<b>3</b>	<b>4</b>	<b>12</b>	Sun cream, min. SPF15 (though SPF30+ recommended) with good UVA and UVB protection to be applied regularly to exposed skin..	<b>1</b>	<b>4</b>	<b>4</b>	DV	DV
				Regular breaks to be taken in shade to limit exposure to sun – use project vehicles with air conditioning if no alternatives available.					
				Appropriate clothing to be worn (topless working prohibited; long sleeves and trousers to be worn wherever feasible) and waterproofs available					
				All staff and participants to bring their own drinking water to be consumed at regular intervals – do not wait until thirsty, thirst is a symptom of dehydration.					
				If necessary, wear sunglasses that offer good UV protection.					
Exposure to wet, cold and/or storm conditions, risk of lightning strike, hypothermia	<b>2</b>	<b>4</b>	<b>8</b>	Appropriate waterproof clothing to be carried and worn when necessary.	<b>1</b>	<b>4</b>	<b>4</b>	DV	DV
				No fieldwork to be undertaken during electric storms.					
				Dry clothing to be available, as necessary.					
				Staff and participants own vehicles to be used in bad weather					

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Hazard/Risk	Risk Rating			Control Measures	Residual Risk			Responsibility	Monitor
	3	6	18		1	6	6		
<b>DRIVING</b>									
Injury to DV staff, DV equipment, plant and members of the public resulting from road traffic accidents.	3	6	18	All members of staff will drive to site in their own vehicles.	1	6	6	DV	DV
				Nominated drivers must familiarise themselves in advance with routes for all journeys, as well as routes to local A&E services and any other destinations considered likely/necessary as part of project work.					DV
				All equipment will be securely stowed during transit, with a fixed bulkhead separating equipment and passengers.					DV/Client
				All vehicle manoeuvring will only occur with the assistance of appropriately located 'banksman'.					DV/Client
				Tyres, water, oil and petrol will be checked weekly.					DV
				Extreme caution will be exercised when entering or leaving public highways.					DV
				Mobile phones will be turned off before commencing any journey and will not be used at all whilst driving.					DV
				Access to site will be via local roads only.					DV
<b>GENERAL MEASURES</b>									
General measures for implementation to maximise any reduction in risk rating.	-	-	-	A mobile phone will be available at all times for use in emergencies.	-	-	-	DV	DV/Client
				Anything that is or seems to be unsafe will be reported to the Site Director immediately.				DV/Client	
				A first aid kit will be available to DV staff and others at all times (i.e. in the welfare area and vehicles).				DV	
				A fire extinguisher will be located in each welfare unit if deployed on site.				DV/Client	

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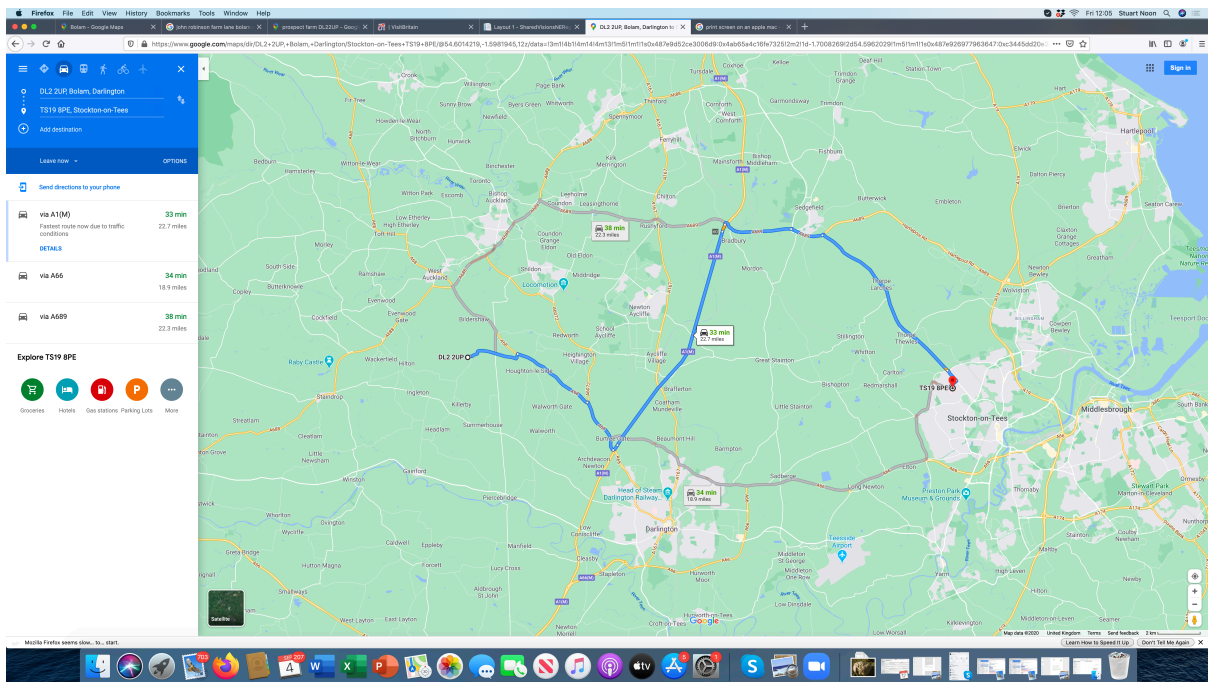




<b>Name</b>	<b>Signature</b>	<b>Date</b>

## 1 CONTACTS

<b>Name</b>	<b>Role</b>	<b>Telephone</b>	<b>Address</b>
Lisa Westcott Wilkins	Project Executive	07787 188184	C/o DigVentures
Brendon Wilkins	Project Director	0333 011 3990 (office) 07581 562490	C/o DigVentures
Chris Casswell	Head of Fieldwork <b>(First Aider)</b>	07931 562050	C/o DigVentures
Nat Jackson	Community Archaeologist	07411453166	C/o DigVentures
Ben Swain	Community Archaeologist <b>(First Aider)</b>	07768169940	C/o DigVentures
David Wallace	Community Archaeologist	07798 753287	C/o DigVentures
Johanna Ungemache	Community Archaeologist	0783349756	C/o DigVentures
Hospital A&E	<b>University Hospital of North Tees</b>	01924 541000	University Hospital of North Tees, Hardwick Rd, Hardwick, Stockton-on-Tees TS19 8PE
Emergency Services		999 112	



33 min  
22.7 miles

## 2 via A1(M)

Fastest route now due to traffic conditions



34 min  
18.9 miles

## 3 via A66



38 min  
22.3 miles

## 4 via A689

## APPENDIX 2 – OASIS FORM

### OASIS ID: digventu1-398440

#### Project details

Project name	Legs cross, Bolam
Short description of the project	<p>DigVentures has been appointed by the Bright Water Landscape Partnership and Durham County Council Archaeology Section (DCCAS) (hereafter 'the Client') to prepare a Written Scheme of Investigation (WSI) for a community geophysical and photogrammetry survey to be undertaken at Legs Cross, Bolam, County Durham (hereafter 'the Site'), Figure 1. The Bright Water Landscape Partnership is a Landscape Partnership Scheme, led by Durham Wildlife Trust and Durham County Council, and supported by the National Heritage Lottery Fund (NHLF). The Partnership has come together with DCCAS and developed a range of community-based archaeological research projects that will investigate and celebrate the natural and built heritage of the Bright Water area and re-connect people with the amazing landscape on their doorstep. Geophysical and photogrammetry survey of the 9th century stone cross-shaft at Legs Cross alongside excavation at Middleham Castle will aid in investigating the impact of the church on settlement and landscape development in the Bright Water area. The survey provides opportunity to engage the local community with their heritage from the outset of the project and to provide transferable skills training. This will provide new evidence for understanding human impacts on the Bright Water landscape during the medieval period. The Site is a Scheduled Monument under the Ancient Monuments and Archaeological Areas Act 1979 (Historic England List Entry No. 1018638). This WSI forms part of the requirements for a Section 42 Licence for Survey on Scheduled Monuments and other Protected Places in accordance with Historic England requirements (Historic England 2018). The geophysical and photogrammetry survey will be undertaken with community volunteers by Met Consultancy Group and DigVentures under the guidance of David Mason, Principal Archaeologist, Durham County Council Archaeology Section (DCCAS).</p>
Project dates	Start: 01-02-2020 End: 30-08-2021
Previous/future work	No / No
Any associated project reference codes	digventu1-348663 - OASIS form ID
Type of project	Research project
Site status	Scheduled Monument (SM)
Current Land use	Cultivated Land 1 - Minimal cultivation
Monument type	HIGH CROSS Early Medieval
Significant Finds	N/A None
Significant Finds	N/A None
Investigation type	"Geophysical Survey"
Prompt	Conservation/ restoration
Solid geology	CARBONIFEROUS/DEVONIAN TRANSITION GROUP



Drift geology (other)	are sedimentary till deposits of glacial origin
Techniques	Magnetometry

### Project location

Country	England
Site location	DURHAM DURHAM DURHAM Legs Cross, Bolam
Postcode	DL2 2UU
Study area	1.96 Hectares
Site coordinates	NZ 432718 531055 54.870758730104 -1.325640700274 54 52 14 N 001 19 32 W Point

### Project creators

Name of Organisation	DigVentures
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	DigVentures
Project director/manager	Brendon Wilkins
Project supervisor	Stuart Noon
Type of sponsor/funding body	Brightwater Landscape Partnerships
Name of sponsor/funding body	National Heritage Lottery Fund

### Project archives

Physical Archive Exists?	No
Digital Archive recipient	Durham County Council HER
Digital Contents	"Survey"
Digital Media available	"Geophysics", "Images raster / digital photography", "GIS"
Digital Archive notes	On approval, the report will be submitted in hard copy and in digital copy to the DCC HER, with a copyright licence granted to Durham County Council to use the report for the purposes of the HER. A final copy of the report will be uploaded to OASIS.
Paper Archive Exists?	No
Entered by	Stuart noon (stuart@digventures.com)
Entered on	7 July 2020

