

# Llanmaes Flood Risk Mitigation Scheme Vale of Glamorgan Archaeological watching brief

**September 2020**

A report for Vale of Glamorgan  
Council  
by Issica Baron BA MA ACIfA

GGAT report no. 2020/066  
Project no. P2077

National Grid Reference  
SS 97919 69956



The Glamorgan-Gwent Archaeological Trust Ltd  
Heathfield House Heathfield Swansea SA1 6EL

<b>Contents</b>	<b>Page</b>
Summary.....	2
Crynodeb .....	3
Acknowledgements .....	4
Copyright notice.....	4
Abbreviations .....	4
<b>1. Introduction.....</b>	<b>5</b>
1.1 Project background .....	5
1.2 Location and geology.....	5
1.3 Historical and archaeological background.....	5
<b>2. Methodology .....</b>	<b>8</b>
<b>3. Results .....</b>	<b>9</b>
3.1 Field north and west of Greystoke House: trenches 1-15 and 22-24.....	9
3.2 Field north of Llanmaes Brook: trenches 16-18 .....	11
3.3 Field along road into Llanmaes: trenches 19-21 .....	15
<b>4. Conclusions.....</b>	<b>18</b>
<b>Bibliography .....</b>	<b>19</b>
<b>Appendix I: Inventory of contexts.....</b>	<b>20</b>
<b>Appendix II: Trial pit coordinates .....</b>	<b>25</b>

## Figures

<b>Figure 1. Approximate location of trial trenches (red outlines not to scale).....</b>	<b>7</b>
<b>Figure 2. Excerpt of 1m DSM LiDAR data for NGR SS9769, showing cropmark in centre. North to top .....</b>	<b>12</b>
<b>Figure 3. Excerpt of 1m DSM LiDAR data for NGR SS9769, showing outcrop (2103) in centre, north of treeline bordering brook running from left to right. North to top .....</b>	<b>17</b>

## Plates

<b>Plate 1. North-facing section of Trench 9 showing topsoil (0900), subsoil (0901), interface (0902) and bedrock (0903). View to the south. Scale in 0.5m increments.....</b>	<b>10</b>
<b>Plate 2. Google Earth 7/12/2013 showing approximate location of Trench 16 (red outline) on cropmark .....</b>	<b>12</b>
<b>Plate 3. West-facing section of Trench 16. View to the east. Scale in 0.10m increments.....</b>	<b>12</b>
<b>Plate 4. Close-up of context (1601) in west-facing section of Trench 16. View to the east. Scale in 0.10m increments .....</b>	<b>13</b>
<b>Plate 5. Plan shot of Trench 17 with rocky subsoil spoil (1701) to right. View to the north. Scale in 0.5m increments.....</b>	<b>13</b>
<b>Plate 6. Oblique of east-facing section of Trench 18, and concrete slab (1801) to right. View to the west. Scale in 0.5m increments.....</b>	<b>14</b>
<b>Plate 7. West-facing section of Trench 19. View to the east. Scale in 0.5m increments.....</b>	<b>16</b>
<b>Plate 8. West-facing section of Trench 21. View to the east. Scale in 0.5m increments.....</b>	<b>16</b>
<b>Plate 9. Possible clearance cairn or reclaimed land (2103). View to the north. Scale in 0.5m increments .....</b>	<b>17</b>

## **Summary**

*The Glamorgan-Gwent Archaeological Trust were commissioned to carry out an archaeological watching brief on ground investigations in advance of a Flood Risk Management Scheme in and around the village of Llanmaes, Vale of Glamorgan.*

*Twenty-five trenches were excavated along the route of proposed ditches in order to assess ground conditions along the proposed route and to inform the final design of the Scheme. Excavation was carried out from 8-10<sup>th</sup> September 2020, and monitored according to a Method Statement produced for the report (GGAT 2020).*

*The only feature encountered was a possible demolished stone wall foundation in trench 16, in line with a rectangular earthwork/cropmark in the northwestern corner of one of the fields and interpreted as a potential sheepfold.*

*No stratified finds were encountered.*

*The proposed ditches cover a route of approximately 1.3km in length, and given the limited nature of the ground investigations, there remains potential for buried archaeological features to be encountered along the route of the proposed scheme.*

*The archaeological work was carried out to the professional standards laid down in the Chartered Institute for Archaeologists' Standard and Guidance for Archaeological Watching Briefs (2014a).*

## **Crynodeb**

*Comisiynwyd Ymddiriedolaeth Archeolegol Morgannwg-Gwent i gynnal briff gwyllo archeolegol ar ymchwiliadau daear cyn Cynllun Rheoli Risg Llifogydd ym mhentref Llanmaes, Dyffryn Morgannwg ac o'i gwmpas.*

*Cloddiwyd pump ar hugain o ffosydd ar hyd llwybr ffosydd arfaethedig er mwyn asesu cyflwr y ddaear ar hyd y llwybr arfaethedig ac i lywio dyluniad terfynol y Cynllun. Gwnaed y cloddio rhwng 8-10 Medi 2020, a'i fonitro yn unol â Datganiad Dull a luniwyd ar gyfer yr adroddiad (GGAT 2020).*

*Yr unig nodwedd y daethpwyd ar ei thraws oedd sylfaen wal gerrig a ddymchwelwyd yn ffos 16, yn unol â gwrthglawdd / cnwd daear hirsgwar yng nghornel ogledd-orllewinol un o'r caeau a'i ddehongli fel corlan ddefaid bosibl.*

*Ni ddaethpwyd o hyd i ddarganfyddiadau haenedig.*

*Mae'r ffosydd arfaethedig yn cwmpasu llwybr oddeutu 1.3km o hyd, ac o ystyried natur gyfyngedig yr ymchwiliadau daear, erys potensial i ddod ar draws nodweddion archeolegol claddedig ar hyd llwybr y cynllun arfaethedig.*

*Gwnaed y gwaith archeolegol yn unol â'r safonau proffesiynol a nodwyd yn Safon ac Arweiniad y Sefydliad Siartredig Archeolegwyr ar gyfer Briffiau Gwyllo Archeolegol (2014a).*

### **Acknowledgements**

The project was managed by Johnny Crawford BSc MA MCifA (Assistant Project Manager) of GGAT Projects. The fieldwork was undertaken by Issica Baron BA MA ACifA (Project Archaeologist) of GGAT Projects. The report and illustrations were prepared by Issica Baron.

### **Copyright notice**

The copyright of this report is held by Glamorgan-Gwent Archaeological Trust Ltd; GGAT has granted an exclusive licence to Vale of Glamorgan Council and their agents to use and reproduce the material it contains. Ordnance Survey mapping is reproduced under licence (AL100005976), unless otherwise noted. Annotations are GGAT copyright.

### **Abbreviations**

CifA:	Chartered Institute for Archaeologists
GGAT:	The Glamorgan-Gwent Archaeological Trust
HER:	Historic Environment Record (curated by the Glamorgan-Gwent Archaeological Trust)
NGR:	National Grid Reference
PRN:	Primary Record Number (in the HER)
RCAHMW:	Royal Commission on the Ancient and Historical Monuments of Wales

## 1. Introduction

### 1.1 Project background

A Flood Risk Management Scheme is being proposed for land in and around the village of Llanmaes, Vale of Glamorgan. The proposed Flood Risk Management Scheme follows several flood events dating back to the 1990s.

The presence of a known rich archaeological resource necessitates archaeological mitigation. The Glamorgan-Gwent Archaeological Trust were commissioned to produce a Method Statement (GGAT Projects 2020) and subsequently carry out an archaeological watching brief on the excavation of test trenches for ground investigations.

A series of twenty-five trial trenches were excavated between 8-10<sup>th</sup> September 2020 in order to assess ground conditions along proposed swales (ditches) and to inform the final scheme design.

Archaeological works consisted of an archaeological watching brief on all ground-breaking works, carried out to the professional standards laid down in the Chartered Institute for Archaeologists' *Standard and Guidance for Archaeological Watching Briefs* (2014a), the results of which forms the subject of this report.

### 1.2 Location and geology

The proposed development scheme is located in and around the village of Llanmaes in the Vale of Glamorgan in South Wales (centred on NGR SS97919 69956). The village lies just under 300m north of the B4265 which marks the northern extent of Llantwit Major and Boverton, but is otherwise in a rural fieldscape setting.

The majority of the proposed scheme is planned to follow the highway and field boundaries to minimise the impact on adjoining farmland. A series of swales (ditches) have been proposed in fields to the west of Llanmaes. The proposed route of swales runs first parallel to Sigingstone Lane, on the western side of the present field boundary hedgerow. It then heads westward north of the field boundary stone walls immediately around Greystoke House (the former Rectory). It continues southwards in the next field, terminating at Llanmaes Brook to the south. A final, shorter and roughly north-south aligned swale is proposed to the west of the main road in to Llanmaes from the B4265 to the south, stretching from an access track opposite West House Farmhouse and Barn to Llanmaes Brook in the south. The test trenches are spread along the route of the swales (Figure 1).

The geology of the study area consists of an interbedded sedimentary bedrock – Porthkerry Member (UKRI 2020). There are no recorded superficial deposits except around Llanmaes Brook, where head deposits of clay, silt, sand and gravel have been mapped.

Although a topographical survey was being carried out alongside the test trenching the results were not yet available at time of writing the report. However, the landscape gradually falls towards the brook, from around 63mOD at the northern end of the proposed swale to 57mOD in the south, and the final, shorter swale from around 52mOD at the northern end to 49mOD in the south.

### 1.3 Historical and archaeological background

A desk-based assessment has been undertaken for a 1km radius study area of the proposed scheme (Baron *forthcoming*), and therefore no additional HER Enquiry was

## **Llanmaes FRMS, Vale of Glamorgan: archaeological watching brief**

raised. The following summary has been compiled from the results of the desk-based assessment.

Statutory searches for the desk-based assessment showed that the study area has an abundance of archaeological evidence for continuity of use from the Prehistoric to Roman periods (up to 410AD), with documentary evidence of a monastery in the Early Medieval period (up to 1086 AD), and surviving Medieval and Post Medieval structures (up to 1900 AD). A number of buildings are listed, and much of Llanmaes village is a designated Conservation Area.

The results of previous investigations indicate a likelihood of archaeological discovery during ground disturbing works. Previous work on new developments have been located within the village and on fields to the east and southeast, however a prehistoric enclosure was located to the southwest of the proposed development route, under the B4265.

There have been a number of small finds recorded from the fields in which the proposed works are located. Within the main field of the proposed ditches finds include a prehistoric arrowhead (PRN 03169s), a 14<sup>th</sup>-17<sup>th</sup> century copper alloy book-clasp (PAS548724AE001C86), and an 18<sup>th</sup> century Silver spoon (Portable Antiquities Scheme PAS548726CC001D80). Adjacent fields, mostly to the northeast of the main field, finds recorded by the National Museum of Wales and the Portable Antiquities Scheme include Roman coins and brooches, Medieval coins and a thimble, Post Medieval trade weights, silver finger ring and coins.

Analysis of aerial photographs and LiDAR (Baron *forthcoming*) have revealed the survival of historical field boundaries seen on 1843 mapping of the parish in the form of cropmarks. Analysis also identified ridge and furrow and enclosure-type features which do not marry up with any historical or modern mapping, and may either indicate they were of lesser importance to the surveyor or, more likely, that they are of earlier date.

Llanmaes FRMS, Vale of Glamorgan: archaeological watching brief

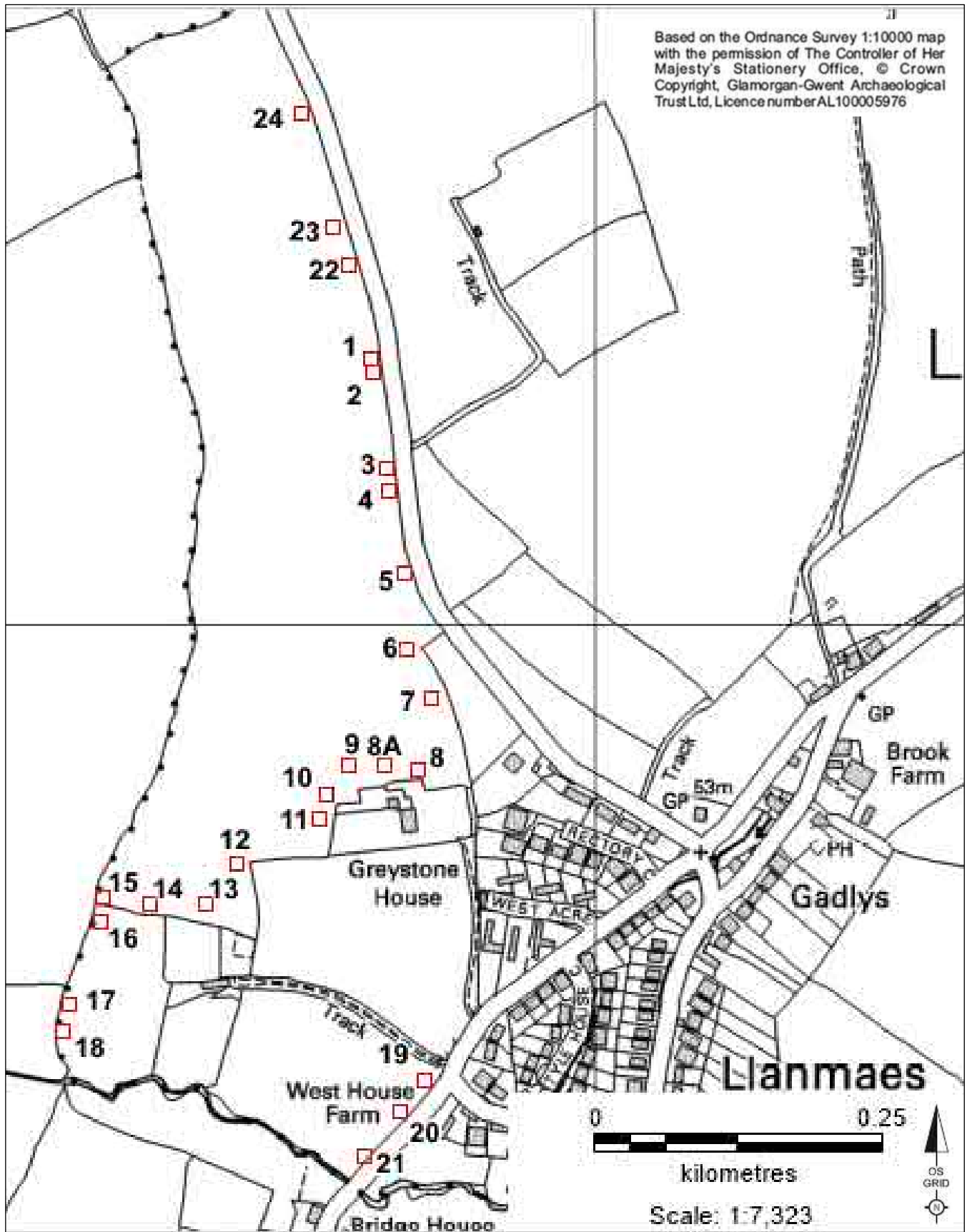


Figure 1. Approximate location of trial trenches (red outlines not to scale)



## 2. Methodology

A watching brief was carried out on the excavation of twenty-five trial trenches. Twenty-one were planned and four were additional trenches, identified as necessary during the course of works (Figure 1). Digging was carried out by a mechanical JCB excavator using a grading bucket, and continued until the depth of the proposed swale or bedrock was reached, whichever came first. Coordinates for each of the trenches were recorded by the site engineer and may be found at Appendix II.

The site code assigned was 974. A written, drawn and photographic record was made of archaeological contexts. Contexts were recorded using a trench numbering system, and are summarised in Appendix I: Inventory of contexts. Each trench was photographed using a PixPro AZ421 digital camera (16 MP) or a Galaxy A3 smart phone (13 MP) as conditions allowed.

An archive of archaeological records relating to the fieldwork and an archive of records relating to the preparation of the reports will be prepared to the specifications in the *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*. (CIfA 2014b), and *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales* (National Panel for Archaeological Archives in Wales 2017). There were no finds or ecofacts retained from the works.

After an appropriate period has elapsed a digital copy of the report and full archive will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth, and a digital copy of the report and archive index will be deposited with the *Regional Historic Environment Record*, curated by the Glamorgan-Gwent Archaeological Trust, Swansea.

### 3. Results

The works have been divided into areas for ease of reporting. Figures and plates are grouped following the text, at the end of each subsection. A complete index of contexts is provided in Appendix I, at the end of the report. All trenches were 0.6m wide and around 1.6m in length.

#### 3.1 Field north and west of Greystoke House: trenches 1-15 and 22-24

Although contexts were recorded using a trench numbering convention, the stratigraphy and contexts encountered in trenches 1-15 and 22-24 were very similar. What was historically four fields, is now one large open field to the north and west of Greystoke House. The entire field contained remnants of the same recently harvested grain crop.

The stratigraphy consisted of a layer of 0.12 – 0.30m topsoil, averaging around 0.20m thickness in most trenches, a fine, plastic dark greyish-brown clayey silt with occasional angular grit and roots. Trenches nearer to tree growth had occasional larger roots. Topsoil finds were scarce and all were of Modern date and not retained: plastic wrappers, a golf ball, a shard of light blue glass, a fragment of ridged creamware (likely from a marmalade jar), and a fragment of orangeware/ceramic building material which was glazed on the inside. No features of archaeological interest were identified in any of the trenches.

The topsoil was underlain by a layer of subsoil, a firm mid-orange brown clayey silt with occasional flecks of manganese. This layer varied in thickness, from a minimum of 0.4m in trench 15 to a maximum of 1.3m in trench 3. The interface with the bedrock below the subsoil was sometimes very abrupt, or excavation was ceased at the first hint of the limestone bedrock (trenches 1, 3-5, 12, 22-24). In most trenches however, the interface was recorded as a distinct context (trenches 2, 6-11, 13-15) where the subsoil became a slightly firmer, more clay and lighter coloured matrix for angular and sub-rounded limestones up to 0.35m in size (Plate 1).



**Plate 1. North-facing section of Trench 9 showing topsoil (0900), subsoil (0901), interface (0902) and bedrock (0903). View to the south. Scale in 0.5m increments**

### 3.2 Field north of Llanmaes Brook: trenches 16-18

Three trenches were excavated in the field immediately south of the southwestern end of the main field described in Section 3.1 (Figure 1). The field was under grass.

Trench 16 was located in the northwestern corner of the field. Both LiDAR and satellite imagery show a faint rectangular cropmark in the corner (Figure 2, Plate 2) which was apparent on the day by both a change in vegetation and a slight rise in the ground. The trench was situated north-south across the southern side of the rectangle and revealed a stony context, possibly the remains of a much-disturbed drystone wall foundation (context 1601). The stony context stretched between the thin (0.10m) topsoil (context 1600) and bedrock (context 1603), a distance of 0.50m. The stones were unfinished and sub-angular, up to 0.25m long, and there were two snail shells and a piece of charcoal. It was visible in both east- and west-facing sections, slightly more clearly in the east. Some loose stones appear to have fallen or been dragged (such as by ploughing) northwards, just below the topsoil and above/into the subsoil (Plate 3, Plate 4). The subsoil (context 1602) was very similar to that in the field to the north (trenches 1-15 and 22-24), a mid-orange brown clayey silt with occasional flecks of manganese. The subsoil was slightly looser in compaction to the north of the stony context; around the vertical stones the compaction was noticeably firmer.

Trench 17 was located approximately 80 metres southwest of Trench 16. The topsoil (context 1700) showed no variation. The subsoil (context 1701) varied slightly from that in Trench 16. It was only 0.40m thick and there were occasional mixed cobbles, gravels and clay (context 1701, Plate 5), increasing at the interface with the bedrock (context 1702).

Trench 18 (Plate 6) was located approximately 45 metres south of Trench 17. Removal of the topsoil (context 1800) revealed a white concrete slab (context 1801), 0.13m thick. The slab was 1.05m wide and over 1.70m long (continuing to both east and west outside the area of excavation). The trench was extended to south to avoid having to excavate through the slab. There were two finds in the topsoil, a broken stainless steel spring and iron object 0.25m long, and a large fragment of thick (0.10m) brown glazed ceramic, similar to an electricity pylon insulator. The subsoil was similar to that in Trench 17, but slightly thicker, 0.70m. Instead of bedrock the subsoil here overlay a layer of light grey clay with small rocks and gravel (context 1803) which was below the water table. The trench was not bottomed.

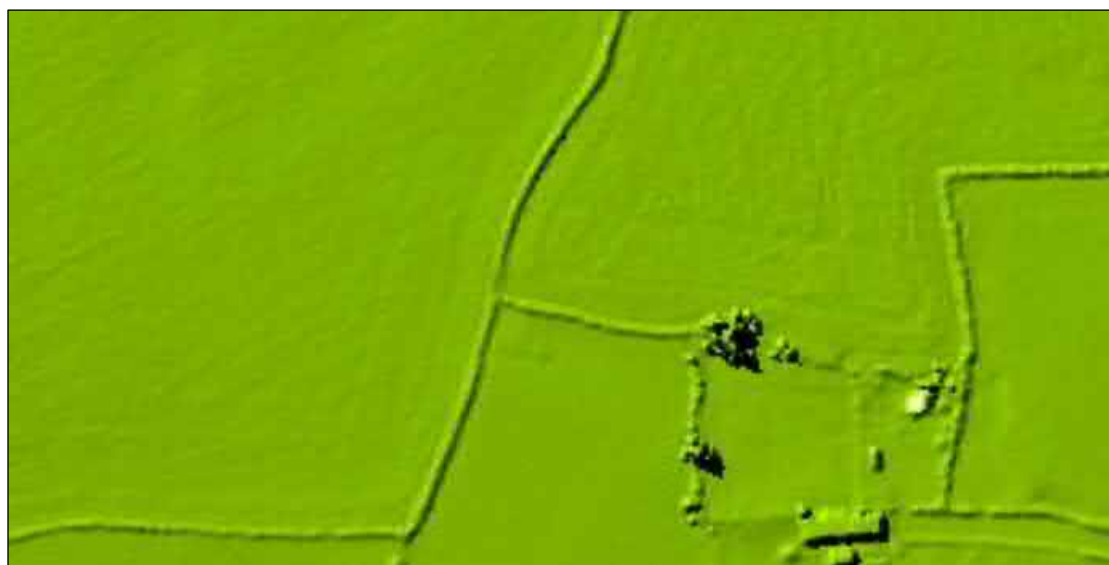




Figure 2. Excerpt of 1m DSM LiDAR data for NGR SS9769, showing cropmark in centre. North to top



Plate 2. Google Earth 7/12/2013 showing approximate location of Trench 16 (red outline) on cropmark



Plate 3. West-facing section of Trench 16. View to the east. Scale in 0.10m increments





Plate 4. Close-up of context (1601) in west-facing section of Trench 16. View to the east. Scale in 0.10m increments



Plate 5. Plan shot of Trench 17 with rocky subsoil spoil (1701) to right. View to the north. Scale in 0.5m increments





Plate 6. Oblique of east-facing section of Trench 18, and concrete slab (1801) to right. View to the west. Scale in 0.5m increments