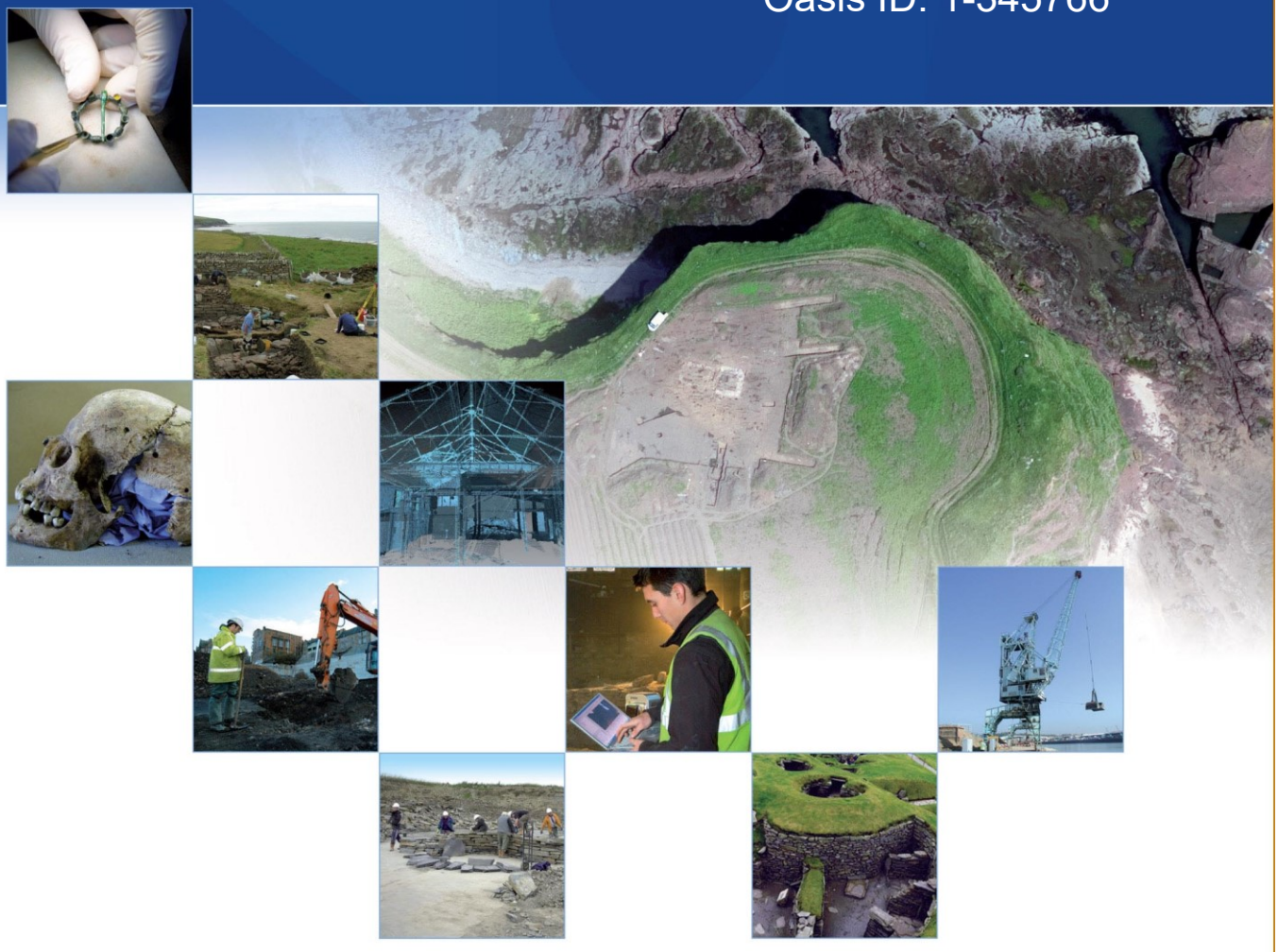
# Marshall Meadows, Northumberland
# Groundwork Investigation
# Archaeological Watching Brief
# Data Structure Report

AOC project No: 24665

Oasis ID: 1-345766



AOC Archaeology Group

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# Marshall Meadows, Northumberland, Groundwork Investigation
# Archaeological Watching Brief: Data Structure Report

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|---|---|
| **On Behalf of:** | **Network Rail<br>c/o TSP Projects<br>Meridian House<br>The Crescent<br>York<br>YO24 1AW** |
| **National Grid Reference (NGR):** | **NT 98400 56384** |
| **AOC Project No:** | **24665** |
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**This document has been prepared in accordance with AOC standard operating procedures.**

| | |
|---|---|
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## Summary

*This report represents the results of an archaeological watching brief undertaken by AOC Archaeology Group on behalf of Network Rail at Marshall Meadows in Northumberland.*

*The site is comprised of a greenfield site divided into two fields and separated by a small road leading down to the rail line from the A1.*

*The works being monitored consisted of a number of small hand-dug test pits. The test pits were all excavated to a depth of 1.2 meters. Also monitored were the windowless samples drilled into the base of the test pits where natural had not been reached.*

*Most of these test pits were sterile. The subsoil in the southern field was very shallow and natural was hit in all fully excavated pits. The northern field contained dumped modern material. A small number of pits contained a compacted layer of stone. Due to the narrowness of the pits it was difficult to ascertain whether these represented features of archaeological significance or not. The stones were recorded and the pits backfilled. Replacement test pits were dug in the vicinity.*

# 1 Introduction

## 1 .1 Project Background

1.1.1 This Data Structure Report (DSR) has been prepared by AOC Archaeology Group on behalf of Network Rail ('the client'), through their agents TSP Projects, Meridian House, York. A program of archaeological works was required by Network Rail in respect to proposed East Coast Mainline (ECML) Traction Supply Upgrade works at Marshall Meadows, Northumberland. The works at this phase of the development consisted of Ground Investigation (GI) boreholes.

1.1.2 The watching brief was undertaken in accordance with the professional guidance on best practice outlined in the Chartered Institute for Archaeologists' (CIfA) publication Standard and guidance for archaeological watching brief (2014a).

1.1.3 The project adhered to the requirements of the National Planning Policy Framework (NPPF; Chapter 16: 'Conserving and enhancing the historic environment'; DCLG 2018)

## 1.2 Site Location

1.2.1 The geotechnical works (site) is located at Marshall Meadows, approximately 5km to the north-west of Berwick on Tweed, Northumberland on an unnamed road running to the east of the A1 centred at (NGR NT 98400 56384). The site is at a height of approximately 60m above ordnance datum (AOD). The site lies within a rural setting bounded by agricultural fields to the north-west and south-east with an electrical installation / station and East Coast Main Line railway to the north-west. The coastline to the south of Marshall Meadows Bay lies approximately 300m to the north-east of the site.

## 1.3 Archaeological Background

1.3.1 Several heritage assets have been recorded in the vicinity of the site including linear features likely to be associated with Iron Age or Romano-British activity, some of which fall within close proximity of the site. These features comprise possible rectilinear ditched enclosures and a ditch of uncertain date which are visible as cropmarks on aerial photographs, centred at (NT 9853 5626). It is possible that some of the linear features may represent later land division and / or drainage features (Monument NO. 1472770). Further cropmark features visible from aerial photography comprise a potential Iron Age or Romano-British double ditched trackway and a ditch of uncertain date that lie to the south of the A1 (Monument NO. 1472784) providing further evidence of archaeological activity within close proximity of the site. A quern stone of possible Iron Age date was found to the south-east of the site in a field immediately north of the A1 (Monument No. 4146).

1.3.2 To the south of the site, immediately to the south of the A1, is the site of The Hermitage of Segden, or Seggeden belonging to the Hospital of St. Mary Magdalen and mentioned in 1296. Tradition says that Segden was the name of the dene or valley running from the farm called "the Folly" (NT 98115600) seawards, where a quarry of late years has been extensively worked'. (Pastscape 2018)

# 2 Objectives

2.1 The objectives of the archaeological watching brief were to determine the character, extent, condition, quality, date and significance of any archaeological remains occurring within the proposed development area. An additional objective was to advise and implement an appropriate form of mitigation, such as excavation, post-excavation analyses and publication, if significant archaeological was encountered. This was compliant with Historic England's publication *Management of Research Projects in the Historic Environment (MoRPHE): Project Managers Guide* (2006), and the MoRPHE *Project Planning Note 3: Archaeological Excavation* (PPN3) (2008).

2.2 The specific aims were:

- To record the presence or absence of paleoenvironmental deposits that may be present on the site;
- To characterise the type, form, nature and condition of deposits; and
- To record the date, depth, quality, condition and nature of any archaeological deposits, features or artefacts revealed by the GI trial pits and boreholes where possible.

2.3 The specific objectives of the archaeological fieldwork are:

- To provide information on the geoarchaeological and archaeological potential of the site.
- To provide a future appropriate mitigation strategy if required based on the results of the archaeological monitoring.
- Produce a comprehensive site archive and a descriptive and interpretive report.

# 3 Methodology

3.1 An archaeological watching brief was carried out on the excavation of 31 hand-dug test pits dug in advance of boreholes being drilled. Each of these test pits was allocated a number by the client and the same numbering system is used in this report. Test pits were generally 0.4m x 0.4m and were 1.2m deep. All archaeological deposits were recorded and where possible preserved in situ by digging a replacement test pit in the immediate vicinity.

3.2 Some of these test pits were selected for windowless sampling. Where natural deposits were not reached in the test pits the windowless samples were monitored to note the presence or absence of geoarchaeological deposits.

# 4 Results

4.1 The archaeological watching brief was carried out on the 4th – 7th of February and on the 12th-13th of February. The various data gathered from the excavation are presented in the appendices:

Appendix 1-Photographic record
Appendix 2-Test pit record
Appendix 3-Windowless sampling record
Appendix 4- Context register

4.2 Nineteen test pits were dug in the southern field (including 02A). The stratigraphy in each was relatively similar. Generally, the topsoil was a dark brown, loamy clay to a depth of 0.2m. The subsoil was usually a mid-brown clay to a depth of about 0.8m and is thus often 0.6m deep. At 0.8m a natural red clay was encountered. This was at sometimes silty clay, though often it was sandy, particularly in the southern end of the southern field. In only one test pit (test pit 02) was archaeology encountered. This is to be expected as heavy ploughing of the field probably erased all other archaeological deposits.

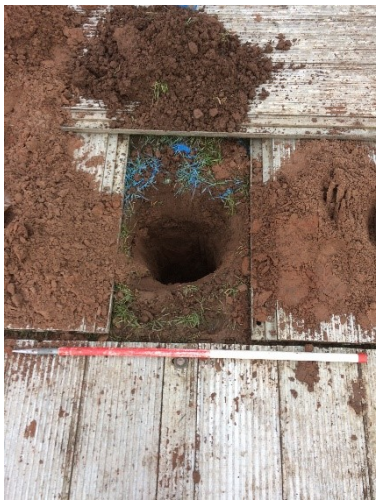

Plate 1: Test pit 21 showing the different types of soil encountered in the southern field [photo 42].

4.3 The one test pit in the southern field which contained any archaeological deposits was test pit 02. Here at a depth of 0.4m a layer of large, rounded overlying stones was encountered. These were given context number (004). They were cleaned and recorded in situ. The small size of the test pit precluded the possibility of determining whether these stones were structural or simply field clearance. However, there was no sign that they had been bonded so the latter possibility appears to be more likely. Nonetheless the stones were preserved in situ and the test pit backfilled. A replacement test pit (02A) was dug 5m to the south of test pit 02. No archaeology was observed in 02A.

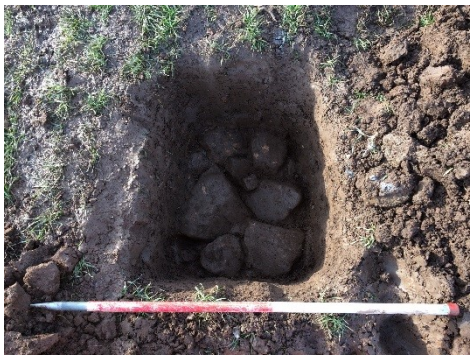

Plate 2: Test pit 02 showing layer of large overlying stones (004) [photo 14].

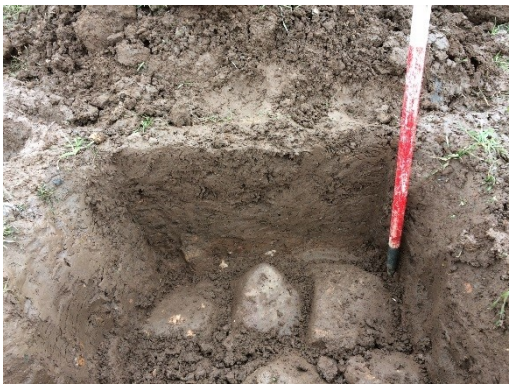

Plate 3: Rough working shot of south-facing section of test pit 02 showing layer of stones (004) [photo 16].

4.4 Twelve test pits were dug in the northern field (including 14A, 14B and 15A). Here the stratigraphy was very different to that encountered in the southern field (except for that encountered in test pit 11). The test pits in this field were generally dug into made ground. Much of the test pits were filled with black soil full of dumped modern material. The depths of this dumped material was such that all of the hand-dug test pits on this side of the road, apart from No.11, did not reach natural deposits.

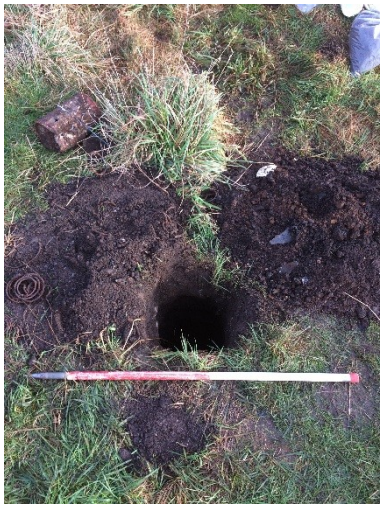

Plate 4: Test pit 18. The spoil contains examples of the dumped modern material which was found in most of the test pits in the northern field [photo 20].

4.5 In both Test Pits 14 and 15 a layer of closely packed, rounded, medium sized stones were encountered at a depth of 0.7m. As with the stones in test pit 02 it was very difficult to determine whether these were structural or simply field clearance due to the dimensions and depth of the test pits. However, these stones were much more regularly sized and closely packed than those in test pit 02. Unlike the stones in test pit 02 there was possibility that these were bonded, again it is difficult to be certain. All this suggests that these stones are more likely to be structural than those in test pit 02. Windowless samples undertaken in other parts of the field (detailed below) found modern material at much greater depths than 0.7m. This indicates that even if these stones were structural then the structure is probably of no great antiquity. The stones were recorded in situ and the test pits backfilled. Replacement test pits 14A and 15A were dug in the immediate vicinity. In 14A a similar layer of stones was encountered at a depth of 0.8m requiring yet another replacement test pit, 14B, to be dug. The similarity of the layer stones in test pits 14, 15 and 14A, their close proximity and the fact that they were all encountered at roughly the same depth strongly suggests that they represent the same deposit.

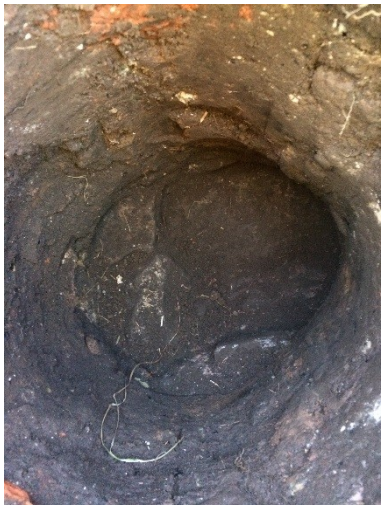

Plate 5: Shot showing the stones (005) at the base of test pit 14 [photo 36].

4.6 A number of windowless samples were drilled into the base of the hand-dug test pits. Those in the southern field were not observed as natural deposits had been reached in the hand-dug test pits. Those in the northern field were monitored as the test pits had not reached natural except for test pit 11. Windowless samples were drilled into test pits 11, 13, 16 and 19. As previously mentioned 11 had already hit natural but the windowless samples in 13, 16 and 19 revealed that the dumped modern material continued to a considerable depth, between 3.35m and 4.7m. These modern deposits directly overlaid the natural with no paleoenvironmental deposits observed. A cable percussive borehole was drilled in test pit 12 in the north field.

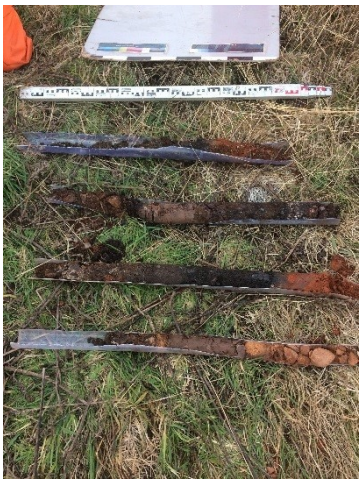

Plate 6: The windowless samples collected from test pit 13. Note the sandy pale reddish-brown natural in the right-hand corner [photo 46].

# 4 Conclusions

5.1 A total of 31 hand-dug test pits were subjected to archaeological monitoring at Marshall Meadows. Nineteen of the test-pits were windowless sampled. Three of these were subjected to archaeological monitoring as the natural deposits had not yet been reached in the hand-dug test pits. The hand-dug test-pits in the south field generally showed that the natural deposits were not very deep. In the northern field however, the natural deposits were much deeper due to a large dump of modern material. In test pits 02, 14, 14A and 15 stones were encountered. These probably don't represent deposits of archaeological significance but due to the small size of the test pits it was difficult to be certain. The stones were preserved in situ as the test pits were backfilled and replacements were dug.

5.2 No archaeologically significant material or features were encountered during the test pitting programme. However, it must be noted that the test pits and boreholes offer limited scope for identifying sub-surface archaeological features.

# 6 Bibliography

CIfA, 2014a *Standards and Guidance for an archaeological watching brief*

Historic Engalnd, 2006c *Management of Research Projects in the Historic Environment (MoRPHE): The MoRPHE Project Managers Guide*

Historic England, 2008 *Management of Research Projects in the Historic Environment (MoRPHE). PPN 3: Archaeological Excavation*

MHCLG. 2018 National Planning Policy Framework (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740441/National_Planning_Policy_Framework_web_accessible_version.pdf)

# APPENDIX 1: Photographic Record

| Photo | Description | From |
|---|---|---|
| 01 | Pre-X shot of Test Pit 04 | N |
| 02 | PX shot of Test Pit 04 | N |
| 03 | Pre-X shot of Test Pit 08 | W |
| 04 | PX shot of Test Pit 08 | W |
| 05 | General shot of South Field | N |
| 06 | PX shot of Test Pit 06 | N |
| 07 | PX shot of Test Pit 07 | W |
| 08 | PX shot of Test Pit 01 | E |
| 09 | PX shot of Test Pit 09 | E |
| 10 | PX shot of Test Pit 10 | S |
| 11 | PX shot of Test Pit 05 | E |
| 12 | PX shot Test Pit 03 | N |
| 13 | PX shot of Test Pit 02 showing stones (004) | N |
| 14 | PX shot of Test Pit 02 showing stones (004) | E |
| 15 | Close shot of stones (004) in Test Pit 02 | S |
| 16 | Rough working shot of test S facing section of test pit 02 showing stratigraphy in relation to stones (004) | S |
| 17 | Shot showing general location of pit 02 | SW |
| 18 | PX shot of Test Pit 2A | N |
| 19 | General Shot of the North Field | SE |
| 20 | PX shot of Test Pit 18 | W |
| 21 | PX shot of Test Pit 17 | W |
| 22 | PX shot of Test Pit 16 | W |
| 23 | PX shot of Test Pit 12 | S |
| 24 | PX shot of Test Pit 19 | W |
| 25 | PX shot of Test Pit 15A | S |
| 26 | Close shot of deposit (008) in section in Test Pit 15A | S |
| 27 | PX shot of Test Pit 14B | W |
| 28 | Close shot of Test Pit 14B | W |
| 29 | PX shot of Test Pit 15 | S |
| 30 | Close shot of Test Pit 15 showing stones (007) | S |
| 31 | Shot showing general location of 15 | W |
| 32 | PX shot of Test Pit 14A | W |
| 33 | Close shot of Test Pit 14A showing stones (006) | W |

| | | |
|---|---|---|
| 34 | Shot showing general location of 14A | W |
| 35 | PX shot of Test Pit 14 | W |
| 36 | Close shot of Test Pit 14 showing stones (005) | W |
| 37 | Shot showing general location of 14 | W |
| 38 | PX shot of Test Pit 11 | W |
| 39 | PX shot of Test Pit 13 | W |
| 40 | PX shot of Test Pit 23 | N |
| 41 | PX shot of Test Pit 26 | N |
| 42 | PX shot of Test Pit 21 | E |
| 43 | PX shot of Test Pit 22 | E |
| 44 | PX shot of Test Pit 25 | E |
| 45 | Shot of Windowless Samples from Test Pit 16, 1m-4m | E |
| 46 | Shot of Windowless Samples from Test Pit 13, 1m-5m | E |
| 47 | Windowless Sample from Test Pit 11 showing natural red clay | E |
| 48 | Shot of Windowless Samples from Test Pit 19, 1m-4m | E |

# APPENDIX 2: TEST PIT RECORD

| Test Pit No. | Length (m) | Width (m) | Description | Notes |
|---|---|---|---|---|
| 01 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**B-horizon**- Mid-brown clay-0.2m<br>**Natural Substratum** - Red sandy clay-0.6m<br>No archaeological features present. | |
| 02 | 0.4 | 0.4 | **Topsoil**- Mid brown silty loam-0.1m<br>**B-horizon**- Mid-brown clay-0.2m<br>**C-horizon**- Red sandy clay not unlike natural 0.1m<br>Below this was a layer of stones possibly set into the red sandy clay. | Stones described in results above |
| 02A | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**B-horizon**- Mid-brown clay-0.2m<br>**Natural Substratum** - Red sandy clay-0.6m<br>No archaeological features present. | |
| 03 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**B-horizon**- Mid-brown clay-0.2m<br>**Natural Substratum** - Red sandy clay-0.6m<br>No archaeological features present. | |
| 04 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.2 m<br>**B-horizon**- Mid-brown clay-0.6 m<br>**Natural Substratum** - Red sandy clay-0.4m<br>No archaeological features present. | |
| 05 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**B-horizon**- Mid-brown clay-0.2m<br>**Natural Substratum** - Red sandy clay-0.6m<br>No archaeological features present. | |
| 06 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**Natural Substratum** - Red sandy clay-1.2m | |

| | | | | |
|---|---|---|---|---|
| | | | No archaeological features present. | |
| 07 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**B-horizon**- Mid-brown clay-0.2m<br>**Natural Substratum** - Red sandy clay-0.6m<br>No archaeological features present. | |
| 08 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.2 m<br>**B-horizon**- Mid-brown clay-0.6m<br>**Natural Substratum** - Red sandy clay-0.4m<br>No archaeological features present. | |
| 09 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**B-horizon**- Mid-brown clay-0.2m<br>**Natural Substratum** - Red sandy clay-0.6m<br>No archaeological features present. | |
| 10 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**B-horizon**- Mid-brown clay-0.2m<br>**Natural Substratum** - Red sandy clay-0.6m<br>No archaeological features present. | |
| 11 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.4 m<br>**B-horizon**- Mid-brown clay-0.2m<br>**Natural Substratum** - Red sandy clay-0.6m<br>No archaeological features present. | |
| 12 | 0.4 | 0.4 | **Made Ground –** Dark brown soil full of modern material such as glass, tile and brick-1.2m | |
| 13 | 0.4 | 0.4 | **Made Ground –** Dark brown soil full of modern material such as glass, tile and brick-1.2m | |
| 14 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.2 m<br>**B-horizon**- Dark brown soil, presumably made ground-0.5m<br>Below this was a layer of stones | Stones described in results above |

| | | | | |
|---|---|---|---|---|
| 14A | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.45 m<br>**B-horizon**- Gritty grey sand with pieces of red brick-0.35<br>Below this was a layer of stones | Stones described in results above |
| 14B | 0.4 | 0.4 | **Topsoil**- Mid brown clay-0.7m<br>**B-horizon**-Compact gritty grey sand/ash. Stones appeared in section but these didn't seem structural-0.2m<br>**C-horizon-**Dark soil, presumably backfill-0.3 | |
| 15 | 0.4 | 0.4 | **Topsoil –** Mid-brown silty loam– 0.2 m<br>**B-horizon**- Dark brown soil, presumably made ground-0.4m<br>**C-horizon-** Gritty grey sand with pieces of red brick-0.1<br>Below this was a layer of stones | Stones described in results above |
| 15A | 0.4 | 0.4 | **Topsoil/Subsoil**- Mid-brown clay-0.7m<br>**B-horizon**-Compact gritty grey sand/ash-0.2m<br>**C-horizon-**Dark soil, presumably backfill-0.3 | |
| 16 | 0.4 | 0.4 | **Made Ground-**Two distinct bands. Dark brown soil for 1m then yellow-grey gritty sand for the remaining 0.2m | |
| 17 | 0.4 | 0.4 | **Made Ground –** Dark brown soil full of modern material such as glass, tile and brick-1.2m | |
| 18 | 0.4 | 0.4 | **Made Ground –** Dark brown soil full of modern material such as glass, tile and brick-1.2m | |
| 19 | 0.4 | 0.4 | **Made Ground-**Two distinct bands. Dark brown soil for 1m then yellow-grey gritty sand for the remaining 0.2m | |
| 20 | 0.4 | 0.4 | **Topsoil –**Dark clay– 0.2 m<br>**Natural Substratum** - Red sandy clay-1m<br>No archaeological features present. | |

| | | | | |
|---|---|---|---|---|
| 21 | 0.4 | 0.4 | **Topsoil –**Dark clay– 0.2 m<br>**Natural Substratum** - Red sandy clay-1m<br>No archaeological features present. | |
| 22 | 0.4 | 0.4 | **Topsoil –**Dark clay– 0.2 m<br>**Natural Substratum** - Red sandy clay-1m<br>No archaeological features present. | |
| 23 | 0.4 | 0.4 | **Topsoil –** Mid-brown clay– 0.2 m<br>**B-horizon**- Light-brown clay-0.6m<br>**Natural Substratum** - Red sandy clay-0.4m<br>No archaeological features present. | |
| 24 | 0.4 | 0.4 | **Topsoil –**Dark clay– 0.2 m<br>**Natural Substratum** - Red sandy clay-1m<br>No archaeological features present. | |
| 25 | 0.4 | 0.4 | **Topsoil –**Dark clay– 0.2 m<br>**Natural Substratum** - Red sandy clay-1m<br>No archaeological features present. | |
| 26 | 0.4 | 0.4 | **Topsoil –**Dark clay– 0.2 m<br>**Natural Substratum** - Red sandy clay-1m<br>No archaeological features present. | |
| 27 | 0.4 | 0.4 | **Topsoil –**Dark clay– 0.2 m<br>**Natural Substratum** - Red sandy clay-1m<br>No archaeological features present. | |

# APPENDIX 3: Windowless sampling record

| Borehole/Test Pit No. | Length (m) | Width (m) | Description | Notes |
|---|---|---|---|---|
| 11 | 0.2 | 0.2 | Top 1.2m dug out as part of the hand-dug test pit<br>**Natural Substratum** - Red sandy clay-0.3<br>At 3m drilling stopped | |
| 13 | 0.2 | 0.2 | Top 1.2m dug out as part of the hand-dug test pit<br>**Made Ground –** Bands of dark brown soil full of modern material such as glass, tile and brick-3.5m<br>**Natural Substratum** - Red sandy clay-0.3<br>At 5m drilling stopped | |
| 16 | 0.2 | 0.2 | Top 1.2m dug out as part of the hand-dug test pit<br>**Made Ground –** Bands of dark brown soil full of modern material such as glass, tile and brick-2.8m<br>At 4m drilling stopped | |
| 19 | 0.2 | 0.2 | Top 1.2m dug out as part of the hand-dug test pit<br>**Made Ground –** Bands of dark brown soil full of modern material such as glass, tile and brick-2.15m<br>**Natural Substratum** - Red sandy clay-0.65<br>At 4m drilling stopped | |

# APPENDIX 4: Context Register

| Context No. | Description and Interpretation |
|---|---|
| 001 | Mid-brown clay of medium compaction. 0.2m thick.<br>**Topsoil in test pit 01** |
| 002 | Mid to dark brown clay below (001) above (002). 0.1m thick.<br>**Subsoil in test pit 01** |
| 003 | Firm reddish-brown sandy clay. Similar to natural found in other parts of site. 0.1m thick<br>**Deposit in test pit 01** |
| 004 | Dense layer of stones. These were large and rounded. They overlaid one another but there was no evidence of them being bonded. They may have been set into (003).<br>**Stones at the base of test pit 01** |
| 005 | Dense layer of overlying stones. These were medium sized, compacted and probably limestone. They may have been bonded and fitted together.<br>**Stones at the base of test pit 14** |
| 006 | Dense layer of overlying stones. These were medium sized, compacted and probably limestone. They may have been bonded and fitted together.<br>**Stones at the base of test pit 14A** |
| 007 | Dense layer of overlying stones. These were medium sized, compacted and probably limestone. They may have been bonded and fitted together.<br>**Stones at the base of test pit 14A** |
| 008 | Compacted layer of light grey, gritty sand/ash with modern inclusions. These included lumps of red brick and fragments of tile. This was 0.7m down and 0.2m deep. This was similar to deposits found in other test pits (see test pit record).<br>**Deposit in test pit 15A** |









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