LAND AT SX417645 SOUTH HOOE PENINSULA BERE FERRERS DEVON

Results of an Archaeological Evaluation



South West Archaeology Ltd. report no. 200716.1



LAND AT SX417645, SOUTH HOOE PENINSULAR, BERE FERRERS, DEVON RESULTS OF AN ARCHAEOLOGICAL EVALUATION

By P. Webb and S. Walls with contributions by T. Davies Report Version: FINAL Issued: 22nd July 2020 Re-issued: 29th July 2020 Finalised: 26th October 2020 Updated with Radio-carbon determination: 17th December 2020

Work undertaken by SWARCH for Bridge Civil Engineering (the Client)

Summary

This report presents the results of archaeological evaluation trenching carried out by South West Archaeology Ltd. (SWARCH) on land on South Hooe Peninsular, Bere Ferrers, West Devon.

The site is located on a spur of land projecting into the River Tamar, approximately 3.5km west-north-west of Bere Ferrers. It is situated within the Tamar Valley Area of Outstanding Natural Beauty and the Plymouth Sound and Tamar Estuaries Marine Protected Area and the West Devon World Heritage Site (WHS). The site comprises two fields on shallow sloping south facing slopes on the north bank of the River Tamar, by which it is bounded to the south, east, and west, at a height of approximately 1m AOD.

A total of eight geotechnical investigation trial-pits, were opened by tracked mechanical excavator to a depth of up to 3.40m, the maximum reach of the machine, under geotechnical and archaeological supervision. A further eight trenches, each 1.60m wide and totalling c.350m in length were opened by tracked mechanical excavator to the depth of weathered natural (or up 2.65m where not encountered) using a toothless grading bucket under archaeological supervision. Exposed archaeological deposits were excavated by hand and in accordance with the WSI and ClfA guidelines.

The evaluation identified a single archaeological feature set within a series of estuarine flood and river deposits indicative of the lowland riverside location of the site, and likely reflecting historic fishing practices, an oak timber from this structure was dated to 1029calAD. Additional stratigraphic layers and extensive land drainage patterns demonstrate the post-medieval attempts at land reclamation.

Further archaeological mitigation is likely to be dependent on the scale of future works. Only limited archaeological remains were identified on the site, and those that were at a substantial depth. It is considered that only if groundworks were to approach this limit that further archaeological mitigation would prove particularly rewarding. However, given the survival of organic remains within the clay deposits, a programme of palaeo-environmental assessment may prove worthwhile.



July 2020, revised December 2020

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1.0 INTRODUCTION

LOCATION.		+3, 3001111100L I LININ30LA
Parish:	Bere Ferrers	
DISTRICT:	WEST DEVON	
COUNTY:	DEVON	
NGR:	SX 417 645	
PLANNING APPLIC	CATION NO:	0545/20/SCO
MUSEUM REF NO	: PLYBX.2020.10	
OASIS NUMBER:	SOUTHWES1-396	753
SWARCH REF.	BFTB20	

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by Bridge Civil Engineering (the Client) to undertake archaeological evaluation trenching; and monitoring and recording of ground investigation works as part of the preliminary stages of the proposed Habitat Creation Project on land at South Hooe Peninsula, Bere Ferrers, West Devon (Figure 1) and follows on from a heritage assessment for the site (Atkins 2019).

This work was undertaken in accordance with a Written Scheme of Investigation (Boyd 2020) drawn up in consultation with the Environment Agency Archaeologist (EA); the Devon County Historic Environment Team (DCHET); Historic England (HE) and in line with best practice and ClfA guidelines (2014).

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The site is located on a spur of land projecting into the River Tamar at South Hooe, approximately 3.5km west-north-west of Bere Ferrers, and north of Plymouth. It is situated within the Tamar Valley Area of Outstanding Natural Beauty and the Plymouth Sound and Tamar Estuaries Marine Protected Area, in a tidal river valley that forms part of a large drowned river valley system. The site comprises two fields on shallow sloping south facing slopes on the north bank of the River Tamar, by which it is bounded to the south, east, and west, at a height of approximately 1m AOD.

The soils of this area are the deep stoneless fine silty and clayey soils variably affected by groundwater of the Conway Association (SSEW 1983), which overlie the sedimentary mudstone, siltstone and sandstone of the Devonian Rocks Formation (BGS 2020).

1.3 HISTORICAL & ARCHAEOLOGICAL BACKGROUND

A heritage desk-based assessment (DBA) for the site has been carried out by Atkins Ltd (Adkins 2019). The site lies within the Cornwall and West Devon Mining World Heritage Site, in Area A10: Tamar Valley Mining District with Tavistock. This summary is derived from the DBA, which gives a broad history of the area.

The Desk-Based Assessment notes that the earliest evidence of human activity near the site dates to the Bronze Age, with three ploughed out barrows (MCO47928) c.725m to the south. Approximately 450m to the south, the PAS records a flat axehead findspot. An Iron Age sub-rectangular enclosure lies c.1km to the south. There is no evidence for Roman occupation recorded within 5km of the site. Hooe is recorded in the Domesday Survey, but no physical evidence of this period is recorded in the DBA. Just to the south of the site the HER records a medieval settlement known as *Tinnel* (MCO16984) with associated priory gatehouse (MCO45048). There is evidence of medieval settlement in farms and

villages in the wider landscape surrounding the site. Cartographic analysis carried out as part of the DBA indicates that the site was drained after the publication of the Tithe and First Edition OS Maps of c.1840 and c.1880 respectively. Not mentioned in the DBA, the tithe seemingly shows a fish trap in one of the areas that has since been reclaimed. The site is largely underwater, with the northern parcel of land marshy and inaccessible. The Second Edition OS Map of 1904 shows the site had been improved and a bund constructed (MDV121742).

1.4 METHODOLOGY

The archaeological evaluation and monitoring and recording were conducted in accordance with a Written Scheme of Investigation (WSI) (Boyd 2020) drawn up in consultation with the Environment Agency Archaeologist (EA); the Devon County Historic Environment Team (DCHET); Historic England (HE) and in line with best practice and ClfA guidelines (2014). A total of eight geotechnical investigation trial-pits, each *c*.0.70m wide and totalling 25m in length were opened by tracked mechanical excavator to a depth of up to 3.40m, the maximum reach of the machine, under geotechnical and archaeological supervision. A further eight trenches, each 1.60m wide and totalling *c*.350m were opened by tracked mechanical excavator to the depth of weathered natural (or up 2.65m where not encountered) using a toothless grading bucket under archaeological supervision. Exposed archaeological deposits were excavated by hand and in accordance with the WSI and ClfA guidelines.

The evaluation was designed to provide an assessment of the areas of proposed groundworks and potential impact to establish the presence or absence, extent, depth, character and date of any *in situ* archaeological deposits within the site to inform any further planning decisions. The archaeological works took place in June and July 2020.

A subsequent phase of archaeological fieldwork consisting of core sample for paleo-environmental purposes was undertaken in October 2020. Two core samples were retrieved by hand using a Russian Corer to the north of the existing embankment in the southern area of the site. It was intended that samples be collected from adjacent to RRG's previous boreholes in this area (WS1 and WS2) (RRG 2020), but the markers left by the borehole survey were no longer visible on the ground. Therefore, coring locations were established by comparing GPS locations on the Google Maps phone app with the borehole location plan. The two coring sites were subsequently recorded using a hand held Garmin GPSMAP 64.

The individual 50cm core segments were extracted into plastic guttering and wrapped in cling film to avoid contamination and placed in cold storage for preservation. The field record of individual core segments included a photograph and rudimentary description of deposits, which included colour, texture and inclusions. It should be noted that the surface of these core segments were not cleaned in detail in the field. Therefore, some details of stratigraphic change may not have been recognised in the field that may potentially come to light during detailed examination of their stratigraphy under controlled laboratory conditions.



FIGURE 1: SITE LOCATION (THE SITE IS INDICATED).



FIGURE 2: SITE PLAN, SHOWING THE LOCATION ARCHAEOLOGICAL INTERVENTIONS AND IDENTIFIED ALLUVIAL CLAY DEPOSITS.

2.0 RESULTS OF ARCHAEOLOGICAL EVALUATION AND MONITORING & RECORDING

2.1 INTRODUCTION

The archaeological fieldwork comprised the monitoring of eight geotechnical investigation trial-pits (Trial-pits 01-08), each 0.70m wide and totalling *c*.25m in length by tracked mechanical excavator to a depth of up to 3.40m, the maximum reach of the machine, under geotechnical and archaeological supervision. The subsequent archaeological evaluation comprised the excavation of a further eight trenches (Trenches 10, 12, 14-18, 20), each 1.60m wide and totalling *c*.350m by tracked mechanical excavator to the depth of weathered natural (or up 2.65m where not encountered) using a toothless grading bucket under archaeological supervision. A further three proposed trenches (*c*.150m) were not excavated following consultation with the Environment Agency Archaeologist due to the depth of excavation and nature of the deposits identified in other trial-pits and trenches. Exposed archaeological deposits were excavated by hand and in accordance with the WSI and CIfA guidelines. The monitoring and evaluation took place between 30th June and 6th July 2020.

The excavations identified a single archaeological feature, a post-built possible fish trap. The position of the palaeochannel identified on LiDAR data was also identified, along with the spread of alluvial clay deposits. A complete description of all contexts can be seen in Appendix 1; detailed finds concordance in Appendix 2; list of samples taken in Appendix 3; and additional baseline photographs in Appendix 4.

2.2 RESULTS

2.2.1 DEPOSIT MODEL

The stratigraphy varied across the site, revealing a pattern of natural bedrock to the higher ground with glacial gravel deposits overlain by estuarine alluvial clays to the lower ground, and subsequent episodes of land reclamation and flooding. The upper stratigraphy was consistent: a soft-friable mid grey-brown clay-silt topsoil across the northern boundary of the site, becoming more of a grey-yellow-brown friable clay-silt-loam to the south where reeds were growing. This overlay a mid grey-brown friable-soft silt-clay lower topsoil. To the north of the site (within trial-pits 01-07 and the northern end of trench 10) these overlay mid grey-brown-yellow friable-soft silt-clay re-deposited natural; light-mid grey-brown-yellow soft slightly silt-clay; light-mid grey-yellow to ginger-yellow soft sand-silt-clays and gravels. The north-east corner proved to be different, trial-pit 08 the topsoils as overlying mid brown friable-soft silt-clay; mid brown-grey firm clay; and natural shillet bedrock. Further variation across the middle of the site (within trenches 10, 12, 16-20) saw the topsoils overlie a mottled mid brown and grey soft clay; and mid grey soft alluvial clay; which in trench 16 overlay light yellow firm slightly sandy clay with gravel. Additional deposits soft black alluvial clay were identified beneath the alluvial clay within the southernmost trenches (trenches 12, 14, and 15); trench 15 identifying this in turn as overlying further mid grey soft alluvial clays.

2.2.2 TRIAL-PIT 01

Trial-pit 01 was located towards the north-eastern corner of Field 1, along its northern boundary. It measured 2.60m long on an approximate north-west to south-east alignment and was excavated to a depth of 2.70m (Figure 3). The topsoils (100)/(101) were *c*.0.37m thick; overlying a possible land reclamation layer (102), re-deposited natural grey-brown-yellow friable friable-soft silt-clay 0.48m thick; natural (103), light-mid grey-yellow soft clay *c*.0.55m thick; and river gravels (104)/(105), grey-yellow to ginger soft sand-silt-clay and gravel 1.30+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.



FIGURE 3: TRIAL-PITS 01-05, PLANS AND SECTIONS. HEIGHTS AT AOD.



2.2.3 TRIAL-PIT 02

Trial-pit 02 was located towards the north-western corner of Field 2, along its northern boundary. It measured 2.90m long on an approximate north-west to south-east alignment and was excavated to a depth of 2.40m (Figures 3-4). The topsoils (200)/(201) were *c*.0.40m thick; overlying a possible land reclamation layer (202), re-deposited natural grey-brown-yellow friable friable-soft silt-clay 0.15m thick; buried topsoil (203), dark brown friable sand-silt *c*.0.25m thick; natural (204), light-mid grey-yellow soft clay *c*.0.65m thick; and river gravels (205)/(206), grey-yellow to ginger soft sand-silt-clay and gravel 0.55+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.



FIGURE 4: TRIAL-PIT 02, NORTH-EAST FACING SECTION DEMONSTRATING THE 'DRY' UPSLOPE DEPOSITS OVER RIVER GRAVELS OF THE NORTHERN EDGE OF THE SITE; VIEWED FROM THE EAST (2M SCALE).

2.2.4 TRIAL-PIT 03

Trial-pit 03 was located towards the north-western corner of Field 2, along its northern boundary to the north of trial-pit 02. It measured 2.90m long on an approximate north-west to south-east alignment and was excavated to a depth of 2.80m (Figure 3). The topsoils (300)/(301) were *c*.0.40m thick; overlying a possible land reclamation layer (302), re-deposited natural grey-brown-yellow friable friable-soft silt-clay 0.20m thick; buried topsoil (303), dark brown friable sand-silt *c*.0.23m thick; river gravels (304)/(305), grey-yellow to ginger soft sand-silt-clay and gravel *c*.1.22m thick; and river gravels (306) ginger-brown soft sand-silt-clay and gravel with shillet inclusions 0.75+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.5 TRIAL-PIT 04

Trial-pit 04 was located mid-way along the northern/western boundary of Field 2, to the north of trialpit 03. It measured 3.40m long on an approximate north-west to south-east alignment and was excavated to a depth of 3.40m (Figure 3). The topsoils (400)/(401) were *c*.0.30m thick; overlying a alluvial clay (402), mid grey soft slightly silt-clay *c*.0.40m thick; natural (403), light-mid grey-yellow soft clay *c*.0.30m thick; river gravels (404)/(405), grey-yellow to ginger soft sand-silt-clay and gravel *c*.0.90m thick; and river gravels (406) ginger-brown soft sand-silt-clay and gravel with shillet inclusions 0.50+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.6 TRIAL-PIT 05

Trial-pit 05 was located mid-way along the northern/western boundary of Field 2, to the north of trialpit 04. It measured 3.40m long on an approximate north-west to south-east alignment and was excavated to a depth of 3m (Figure 3). The topsoils (500)/(501) were c.0.25m thick; overlying a alluvial clay (502), mid grey soft slightly silt-clay c.0.25m thick; buried soil (503), dark brown soft-friable claysilt c.0.10m thick; and river gravels (504)/(505), grey-yellow to ginger soft sand-silt-clay and gravel 2.50+m thick. Solid natural bedrock (506) was identified at the northern end of this trial-pit.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.7 TRIAL-PIT 06

Trial-pit 06 was located mid-way along the northern/western boundary of Field 2, to the north of trialpit 05. It measured 3.40m long on an approximate north-west to south-east alignment and was excavated to a depth of 2.90m (Figure 5). The topsoils (600)/(601) were *c*.0.35m thick; overlying a mixed alluvial clay/reclamation layer (602), mixed mid brown and brown grey soft clay *c*.0.50m thick; natural (603), light-mid grey-yellow soft clay *c*.0.25m thick; river gravels (604)/(605), grey-yellow to ginger soft sand-silt-clay and gravel *c*.1.10m thick; and river gravels (606) ginger-brown soft sand-siltclay and gravel with shillet inclusions 0.70+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.8 TRIAL-PIT 07

Trial-pit 07 was located towards the north/north-eastern corner of Field 2, to the north of trial-pit 06. It measured 3.20m long on an approximate east to west alignment and was excavated to a depth of 3.30m (Figure 5). The topsoils (700)/(701) were c.0.40m thick; overlying a mixed alluvial clay/reclamation layer (702), mixed mid brown and brown grey soft clay c.0.25m thick; natural (703), light-mid grey-yellow soft clay c.0.75m thick; river gravels (704)/(705), grey-yellow to ginger soft sand-silt-clay and gravel c.1.20m thick; river gravels (706) ginger-brown soft sand-silt-clay and gravel 0.40+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.9 TRIAL-PIT 08

Trial-pit 08 was located towards the north/north-eastern corner of Field 2, to the north of trial-pit 07. It measured 3.20m long on an approximate north-west to south-east alignment and was excavated to a depth of 1.95m (Figures 5-6). The topsoils (800)/(801) were *c*.0.28m thick; overlying natural clays (802)/(803), mid brown-yellow and brown-grey-yellow soft-firm clays *c*.0.45m thick; and natural bedrock (804), shillet within mid blue-grey firm clay 1.20+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

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FIGURE 5: TRIAL-PITS 06-08, PLANS AND SECTIONS. HEIGHTS AT AOD.

LEGEND

	alluvial clay - black	
	alluvial clay - grey	
	bedrock	
	clay	
	gravels	
	land reclamation	
	topsoils	
00		2m



FIGURE 6: TRIAL-PIT 08, NORTH-EAST FACING SECTION DEMONSTRATING ITS DIFFERENT STRATIGRAPHIC MAKE-UP WITH 'DRY' DEPOSITS OVER NATURAL BEDROCK RATHER THAN RIVER GRAVELS; VIEWED FROM THE EAST (2M SCALE).

2.2.10 TRENCH 10

Trench 10 was located mid-way along the northern boundary of Field 1, to the south-west of trial-pit 01. It measured 50.15m long on an approximate north-north-east to south-south-west alignment and was excavated to a depth of up to 2.35m (Figures 7-8). The topsoils (1000)/(1001) were 0.25-0.32m thick; overlying a mixed alluvial clay/reclamation layer (1002), mixed mid brown and brown grey soft clay 0.15-0.40m thick. At the northern end of the trench these overlay a possible land reclamation layer (1003), re-deposited natural grey-brown-yellow friable friable-soft silt-clay 0.06-0.18m thick; buried topsoil (1004), dark brown friable sand-silt up to 0.10m thick; river gravels (1005), mid yellow soft clay with smoothed sub-angular to rounded pebbles 0.60+m thick; and natural (1009), mid brown-yellow soft silt-clay. To the south they overlay deposits within river channel [1006], a sinuous linear feature orientated approximately east to west containing alluvial clays (1007)/(1008), mid-dark grey soft clay with organic reed and wood inclusions 1.70+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.11 TRENCH 12

Trench 12 was located at the north-east corner of Field 1, to the north-east of trench 10. It measured 49.10m long on an approximate north-west to south-east alignment and was excavated to a depth of up to 2.60m (Figures 7 & 9). The topsoils (1200)/(1201) were 0.25m thick; overlying a mixed alluvial clay/reclamation layer (1202), mixed mid brown and brown grey soft clay 0.40-0.50m thick; alluvial clays (1203)/(1204), mid grey soft clay with organic reed and wood inclusions 1.60+m thick; and at the southern end of the trench alluvial clay (1205), dark black dense clay with shell inclusions 1+m thick.

No archaeological features or deposits were identified within this trial-pit. Finds recovered from this trench included fragments of post-medieval pottery from topsoil (1200).





FIGURE 8: TRENCH 10, EAST FACING SECTION SHOWING THE 'DRY' UPSLOPE LAYERS IDENTIFIED IN THE TRIAL-PITS; VIEWED FROM THE NORTH-EAST (2M SCALE).



FIGURE 9: TRENCH 12, NORTH-WEST FACING SECTION DEMONSTRATING THE ALLUVIAL CLAY DEPOSITS ACROSS THE SOUTHERN PORTION OF THE SITE; VIEWED FROM THE WEST (2M SCALE).

2.2.12 TRENCH 14

Trench 14 was located towards the western boundary of Field 2, to the south-east of trench 12, and running across an earthwork hollow. It measured 48.70m long on an approximate north-west to south-east alignment and was excavated to a depth of up to 2.50m (Figure 10). The topsoils (1400)/(1401) were up to 0.40m thick; overlying a mixed alluvial clay/reclamation layer (1402), mixed mid brown and brown grey soft clay up to 1.05m thick; alluvial clay (1403), mid grey soft clay 0.20m thick; alluvial clay (1404), dark grey to dark black dense clay with occasional shell inclusions *c*.1.05m thick; and alluvial clays (1405)/(1406), dark-light grey and blue-grey soft clays 1.30+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.13 TRENCH 15

Trench 15 was located towards the centre of Field 2, to the north-east of trench 14, and running across an earthwork hollow. It measured 47.45m long on an approximate north-west to south-east alignment and was excavated to a depth of up to 2.65m (Figures 10-11). The topsoils (1500)/(1501) were up to 0.40m thick; overlying a mixed alluvial clay/reclamation layer (1502), mixed mid brown and brown grey soft clay up to 0.45m thick; alluvial clay (1503), mid grey soft clay 0.25-0.30m thick; alluvial clay (1504), dark grey to dark black dense clay 0.90+m thick; alluvial clay (1505), mid grey soft clay with abundant organic reed, wood and shell inclusions 0.20-0.25m thick; and alluvial clay (1506), mid grey soft clay 0.70+m thick.

A single archaeological feature, post-built structure {1509}, was identified at the south-eastern end of the trench. It was only identified in section and detailed recording was not possible due to the depth of excavation, collapsing trench sides and water incursion. The structure comprised a series of driven wooden posts *c*.0.30-0.40m long represented by posts [1507] and [1508] surviving *in situ* (until later section collapse), with further posts indicated by impressions within the clay and recovered from collapsed section material. Each post had a pointed base and appeared to have a flat cut top. These created a moderately tightly packed post arrangement orientated approximately north-east to southwest, which had allowed a build-up of organic material and estuarine shells within alluvial clay (1505) and indicating its use a fish weir/trap.

No finds were recovered from this trench.

2.2.14 TRENCH 16

Trench 16 was located towards the centre of Field 2, to the north-west of trench 15. It measured 47.50m long on an approximate north-east to south-west alignment and was excavated to a depth of up to 2m (Figure 12). The topsoils (1600)/(1601) were up to 0.45m thick; overlying a mixed alluvial clay/reclamation layer (1602), mixed mid brown and brown grey soft clay up to 0.35m thick; alluvial clay (1603), mid grey soft clay 0.85-0.95m thick; and river gravels (1604), light yellow firm clay with abundant gravel 0.50+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.



FIGURE 10: TRENCHES 14 AND 15, PLANS AND SECTIONS. HEIGHTS AT AOD.



FIGURE 11: POST-BUILT STRUCTURE {1509}, NORTH-WEST FACING SECTION DEMONSTRATING THE PRESENCE OF IMPRESSIONS WITHIN THE CLAY INDICATING THE POSITION OF ADDITIONAL POSTS; VIEWED FROM THE NORTH-WEST (2M SCALE).

2.2.15 TRENCH 17

Trench 17 was located towards the western boundary of Field 2, to the north of trench 16. It measured 48.90m long on an approximate east to west alignment and was excavated to a depth of up to 2.40m (Figure 12). The topsoils (1700)/(1701) were 0.30-0.50m thick; overlying a mixed alluvial clay/reclamation layer (1702), mixed mid brown and brown grey soft clay up to 0.20-0.60m thick; and alluvial clay (1703), mid grey soft clay 0.05-1m thick. To the east these overlay a further alluvial clay deposit (1706), mid grey soft clay with organic reed inclusions 0.30+m thick. Across the western end of the trench, alluvial clay (1703) overlay a possible land reclamation layer (1704), re-deposited natural grey-brown-yellow friable friable-soft silt-clay up to 0.10m thick; possible flooded topsoil deposit (1705), light brown-yellow soft clay 0.20-0.25m thick; and natural (1707), light brown-yellow soft sandy clay with common sub-rounded gravel inclusions 0.10+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.16 TRENCH 18

Trench 18 was located towards the northern end of Field 2, to the north-east of trench 17. It measured 46.55m long on an approximate north-west to south-east alignment and was excavated to a depth of up to 2.50m (Figure 13). The topsoils (1800)/(1801) were *c*.0.30m thick; overlying a mixed alluvial clay/reclamation layer (1802), mixed mid brown and brown grey soft clay up to 0.15-0.25m thick; alluvial clays (1803)/(1804)/(1805), mid grey soft clays with organic reed inclusions 0.50-1.50m thick; and river gravels (1806), mid grey-yellow soft gritty clay with occasional sub-rounded gravel 0.10+m thick.

No archaeological features or deposits were identified within this trial-pit. Finds recovered from this trench included half of a polished stone with hole from alluvial clay (1803).



FIGURE 12: TRENCHES 16 AND 17, PLANS AND SECTIONS. HEIGHTS AT AOD.



(1) trench 18, post-excavation

SE

NW

A 2

(1806)



FIGURE 13: TRENCHES 18 AND 20, PLANS AND SECTIONS. HEIGHTS AT AOD.



2.2.17 TRENCH 20

Trench 20 was located at the northern end of Field 2, to the north-east of trench 18. It measured 48.15m long on an approximate north-west to south-east alignment and was excavated to a depth of up to 2.45m (Figure 13). The topsoils (2000)/(2001) were *c*.0.30m thick; overlying a possible flooded topsoil layer (2002), mid brown soft clay 0.10-0.15m thick; mixed alluvial clay/reclamation layer (2003), mixed mid brown and brown grey soft clay up to 0.20-0.25m thick; alluvial clays (2004)/(2005)/(2006), mid grey soft clays with organic reed inclusions 0.60-1.20m thick; and river gravels (2007), mid grey-brown soft sandy clay with occasional sub-rounded gravel 0.60+m thick.

No archaeological features or deposits were identified within this trial-pit; and no finds were recovered.

2.2.18 FINDS

Only a small quantity of finds were recovered during the excavations, including: one sherd (20g) of later 18th century teapot and one sherd (44g) of later 19th century sanitary ware from topsoil (1200); one sherd (16g) white refined earthenware plat and one fragment (8g) later 19th century glass condiment bottle from topsoil (1800); and one half fragment of a polished stone (fishing weight/anchor) from alluvial clay (1803). Photographs of the polished stone were sent to Dr. Sue Watts for comment and in her expert opinion it appears that it could be a Roman quern stone, although potentially reused as a weight.

The limited quantity of finds recovered from the site suggests that there has likely been limited activity on the site, that which has occurred being during the post-medieval period following the reclamation of the land and largely reflecting the deposition of domestic waste.

2.3 DISCUSSION

The evaluation identified a deposit model which reflects the lowland riverside location of the site with a series of fluctuating alluvial clay flood deposits which indicate variations in the flow of the River Tamar, with distinct river channels (Figure 14); along with episodes of attempted land reclamation. A single archaeological feature, a post-built fish weir/trap, was identified within one of the former river channels.

The stratigraphy across the site demonstrates the lowland position of the site, natural bedrock sloping down from the north-east (within trial-pit 08) towards the south-west (identified again at greater depth within trial-pit 05) as it is cut by a former glacial channel with overlying gravel deposits. These form the bed to the later river channel, the northern edge of which, [1006], was identified within trench 10. Shallower alluvial clay deposits and the higher level of gravels towards the northern and western ends of trenches 16-20 reflect the rising bedrock and nearby edge to the river channel; broadly following the boundary to Field 2, being reached between the trenches and the trial-pit locations. The alluvial clay deposits continue to deepen towards the south and south-east, at the southern ends of trenches 10 and 12; and within trenches 14 and 15, where gravel deposits were not exposed.

Distinct variations within the alluvial clays were identified which demonstrate the varying flow of water across this area. The earliest deposit (1506) was a clean alluvial clay suggestive a greater flow of water to subsequent periods, and formed the former river bed into which the posts of fish trap {1509} were driven. A timber from fish trap {1509} has been radio-carbon dated to 1029calAD. The subsequent reduction in water flow resulted in the increased deposition of organic material, including reeds and estuarine shellfish across the site; these deposits were only not identified within trenches 12 and 16. The fish trap was sealed by a distinct channel of dark grey to black alluvial clays which appears to run across the southern part of the site and identified only within the southern ends of trenches 10 and 12, and across trenches 14-15; and may represent the two channels depicted on the 1840 Bere Ferrers

tithe map (Atkins 2019) and other historic mapping (see Figure 14), and across which further possible fish traps structures appear to have been depicted. These channels in turn were sealed by a further site-wide clean grey alluvial clay which was present within all of the trenches and extended into trial-pits 04-05. The first attempt at land reclamation was made following this episode, a re-deposited natural clay used to build-up the ground along the northern/western edge of the site, burying topsoil and alluvial deposits alike, and identified within trial-pits 01-03 and the northern end of trench 10. However, this reclamation appears not to have been entirely successful, as a further shallow alluvial clay deposit sealing it to the north within trench 17. A secondary more comprehensive reclamation episode followed across the entire site, appearing to comprise the spread of soils across and within what is likely to have been a marshland area.



FIGURE 14: EXTRACT FROM A 1737 MAP SHOWING THE APPROXIMATE LOCATION OF THE SITE. POSSIBLE FISH TRAPS ARE INDICATED.

The archaeological remains identified during the evaluation would appear to suggest that terrestrial features are unlikely to be present, much of the site being covered by former river channels and marshland. However, a post-built structure, likely a fish trap/weir, was identified within the estuarine deposits and it is likely that further such structures survive across the channel(s), the position of some being between islands are indicated on historic mapping. Whilst no peat deposits were encountered during the archaeological works, geotechnical coring indicated the presence of such deposits at significant (c.5m) depth; and organic remains (reeds and occasional branches) were identified within the alluvial clays.



FIGURE 15: SITE PLAN SHOWING APPROXIMATE EXTENTS OF ALLUVIAL CLAYS; AND POSSIBLE ROUTES OF CHANNELS (AS INDICATED ON HISTORIC MAPPING AND BY BLACK ALLUVIAL DEPOSITS IDENTIFIED DURING EXCAVATION) IN RELATION TO INVESTIGATIVE WORKS AND LOCATIONS OF PROPOSED WORKS.



3.0 CONCLUSION

The evaluation identified a single archaeological feature set within a series of estuarine flood and river deposits indicative of the lowland riverside location of the site, and likely reflecting historic fishing practices; an oak timber recovered from this structure was dated to 1029calAD. Additional stratigraphic layers demonstrate the post-medieval attempts at land reclamation.

Further archaeological mitigation is likely to be dependent on the scale of future works, which will be detailed in a forthcoming Environmental Statement (Atkins forthcoming). Only limited archaeological remains were identified on the site, and those that were at a substantial depth. It is considered that only if groundworks were to approach this limit that further archaeological mitigation would prove particularly rewarding. However, given the survival of organic remains, a programme of environmental assessment of the retrieved core may prove worthwhile.



FIGURE 16: BOTH SIDES OF FISHING WEIGHT RECOVERED FROM TRENCH 18 ON 1CM GRID.

4.0 BIBLIOGRAPHY & REFERENCES

Published Sources:

ClfA 2014: Standard and Guidance for Archaeological Field Evaluation.

Soil Survey of England and Wales (SSEW) 1983: *Legend for the 1:250,000 Soil Map of England and Wales* (a brief explanation of the constituent soil associations).

Websites:

British Geological Survey 2020: *Geology of Britain Viewer*. http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html

Unpublished Sources:

Atkins Ltd. 2019: Tamar Estuary Habitat Creation (South Hooe): Heritage Desk Based Assessment. Atkins Ltd.

- Atkins Ltd. Forthcoming: Tamar Estuary Habitat Creation (South Hooe): Environmental Statement. Atkins Ltd.
- **Boyd, N.** 2020: Land at SX417645, South Hooe Peninsula, Bere Ferrers, Devon: Written Scheme of Investigation. SWARCH WSI No.: BFTB20WSIv1.3.

APPENDIX 1: CONTEXT DESCRIPTIONS

Context	Туре	Description	Relationships	Depth/thickness (m)	Spot date
		Trial-pit 01			
(100)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (101); same as (200), (300), (400), (500), (600), (700), (800)	c.0.18m thick	Modern
(101)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (100); overlies (102); same as (201), (301), (401), (501), (601), (701), (801), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	c.0.19m thick	-
(102)	Layer	Re-deposited natural - mid grey-brown-yellow friable-soft silt-clay with occasional-common sub- angular stone. Land reclamation layer?	Overlain by (101); overlies (103); same as (202), (302), (1004)	c.0.48m thick	-
(103)	Natural	Natural – light-mid grey-yellow soft slightly silt-clay with occasional-common sub-angular stone.	Overlain by (102); overlies (104); same as (204)	c.0.55m thick	-
(104)	River gravel	Light-mid grey-yellow soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (103); overlies (105); same as (205), (304), (404), (504), (604), (704)	c.0.35m thick	-
(105)	River gravel	Mid ginger soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (104); same as (206), (305), (405), (505), (605), (705)	0.95+m thick	-
		Trial-pit 02			
(200)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (201); same as (100), (300), (400), (500), (600), (700), (800)	c.0.20m thick	Modern
(201)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (200); overlies (202); same as (101), (301), (401), (501), (601), (701), (801), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	c.0.20m thick	-
(202)	Layer	Re-deposited natural - mid grey-brown-yellow friable-soft silt-clay with occasional-common sub- angular stone. Land reclamation layer?	Overlain by (201); overlies (203); same as (102), (302), (1003)	c.0.15m thick	-
(203)	Layer	Buried topsoil – dark brown friable sand-silt with frequent sub-angular small stone inclusions.	Overlain by (202); overlies (204); same as (303), (1004)	c.0.25m thick	-
(204)	Natural	Natural – light-mid grey-yellow soft slightly silt-clay with occasional-common sub-angular stone.	Overlain by (203); overlies (205); same as (103), (403)	c.0.65m thick	-
(205)	River gravel	Light-mid grey-yellow soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (204); overlies (206); same as (104), (304), (404), (504), (604), (704)	c.0.25m thick	-
(206)	River gravel	Mid ginger soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (205); same as (105), (305), (405), (505), (605), (705)	0.30+m thick	-
		Trial-pit 03			
(300)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (301); same as (100), (200), (400), (500), (600), (700), (800)	c.0.22m thick	Modern

(301)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (300); overlies (302); same as (101), (201), (401), (501), (601), (701), (801), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	c.0.18m thick	-
(302)	Layer	Re-deposited natural - mid grey-brown-yellow friable-soft silt-clay with occasional-common sub- angular stone. Land reclamation layer?	Overlain by (301); overlies (303); same as (102), (202), (1003)	c.0.20m thick	-
(303)	Layer	Buried topsoil – dark brown friable sand-silt with frequent sub-angular small stone inclusions.	Overlain by (302); overlies (304); same as (203), (1004)	c.0.23m thick	-
(304)	River gravel	Light-mid grey-yellow soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (303); overlies (305); same as (104), (205), (404), (504), (604), (704)	c.0.57m thick	-
(305)	River gravel	Mid ginger soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (304); overlies (306); same as (105), (206), (405), (505), (605), (705)	c.0.65m thick	-
(306)	River gravel	Dark ginger-brown and mid ginger soft sand-silt-clay with abundant sub-rounded river gravels with shillet inclusions. Suggestion of nearing natural bedrock, with river erosion?	Overlain by (305); same as (406), (606), (706)	0.70+m thick	-
		Trial-pit 04			
(400)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (401); same as (100), (200), (300), (500), (600), (700), (800)	c.0.15m thick	Modern
(401)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (400); overlies (402); same as (101), (201), (301), (501), (601), (701), (801), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	c.0.15m thick	-
(402)	Layer	Alluvial clay – mid grey soft slightly silt-clay.	Overlain by (401); overlies (403); same as (502)	c.0.40m thick	-
(403)	Natural	Natural – light-mid grey-yellow soft slightly silt-clay with occasional-common sub-angular stone.	Overlain by (402); overlies (404); same as (103), (204)	c.0.30m thick	-
(404)	River gravel	Light-mid grey-yellow soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (403); overlies (405); same as (104), (205), (304), (504), (604), (704)	c.0.25m thick	-
(405)	River gravel	Mid ginger soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (404); overlies (406); same as (105), (206), (305), (505), (605), (705)	c.0.65m thick	-
(406)	River gravel	Dark ginger-brown and mid ginger soft sand-silt-clay with abundant sub-rounded river gravels with shillet inclusions. Suggestion of nearing natural bedrock, with river erosion?	Overlain by (405); same as (306), (606), (706)	0.50+m thick	-
		Trial-pit 05			
(500)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (501); same as (100), (200), (300), (400), (600), (700), (800)	c.0.15m thick	Modern
(501)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (500); overlies (502); same as (101), (201), (301), (401), (601), (701), (801), (1001), (1201).	c.0.10m thick	-

			(1401), (1501), (1601), (1701), (1801), (2001)		
(502)	Layer	Alluvial clay – mid grey soft slightly silt-clay.	Overlain by (501); overlies (503); same as (402)	c.0.25m thick	-
(503)	Layer	Buried soil – dark brown soft-friable clay-silt with abundant angular and sub-angular stone.	Overlain by (502); overlies (504); same as (203), (303)	c.0.10m thick	-
(504)	River gravel	Mid brown-yellow soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (503); overlies (505); same as (104), (205), (304), (404), (604), (704)	c.1.20m thick	-
(505)	River gravel	Mid brown-ginger soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (504); overlies (506); same as (105), (206), (305), (405), (605), (705)	1.30+m thick	-
(506)	Natural	Natural – solid shillet bedrock.	Overlain by (505)	-	-
		Trial-pit 06		1	-
(600)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (601); same as (100), (200), (300), (400), (500), (700), (800)	c.0.15m thick	Modern
(601)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (600); overlies (602); same as (101), (201), (301), (401), (501), (701), (801), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	c.0.20m thick	-
(602)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (601); overlies (603); same as (702); (1202), (1402), (1502), (1602), (1702), (1802), (2002)	c.0.50m thick	-
(603)	Natural	Natural – light-mid grey-yellow soft slightly silt-clay with occasional-common sub-angular stone.	Overlain by (602); overlies (604); same as (103), (204), (403), (703)	c.0.25m thick	-
(604)	River gravel	Light-mid grey-yellow soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (603); overlies (605); same as (104), (205), (304), (404), (504), (704)	c.0.40m thick	-
(605)	River gravel	Mid ginger soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (604); overlies (606); same as (105), (206), (305), (405) (505), (705)	c.0.70m thick	-
(606)	River gravel	Dark ginger-brown and mid ginger soft sand-silt-clay with abundant sub-rounded river gravels with shillet inclusions. Suggestion of nearing natural bedrock, with river erosion?	Overlain by (605); same as (306), (406), (706)	0.70+m thick	-
		Trial-pit 07			
(700)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (701); same as (100), (200), (300), (400), (500), (600), (800)	c.0.15m thick	Modern
(701)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (700); overlies (702); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	c.0.25m thick	-

(702)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (701); overlies (703); same as (602); (1202), (1402), (1502), (1602), (1702), (1802), (2002)	c.0.25m thick	-
(703)	Natural	Natural – light-mid grey-yellow soft slightly silt-clay with occasional-common sub-angular stone.	Overlain by (702); overlies (704); same as (103), (204), (403), (603)	c.0.75m thick	-
(704)	River gravel	Light-mid grey-yellow soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (703); overlies (705); same as (104), (205), (304), (404), (504), (604)	c.0.50m thick	-
(705)	River gravel	Mid ginger soft sand-silt-clay with abundant sub-rounded river gravels. Concreted/compacted when in-situ.	Overlain by (704); overlies (706); same as (105), (206), (305), (405) (505), (605)	c.0.70m thick	-
(706)	River gravel	Dark ginger-brown and mid ginger soft sand-silt-clay with abundant sub-rounded river gravels with shillet inclusions. Suggestion of nearing natural bedrock, with river erosion?	Overlain by (705); overlies (707); same as (306), (406), (606)	0.30m thick	-
(707)	River sands	Light yellow-brown sand and sub-rounded river gravel with shillet.	Overlain by (706)	0.4+0m thick	-
		Trial-pit 08			
(800)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (801); same as (100), (200), (300), (400), (500), (600), (700)	c.0.15m thick	Modern
(801)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (800); overlies (802); same as (101), (201), (301), (401), (501), (601), (701), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	c.0.13m thick	-
(802)	Layer	Mid brown-yellow friable-soft silt-clay with common-occasional sub-angular to sub-rounded stone. Disturbed natural?	Overlain by (801); overlies (803)	c.0.17m thick	-
(803)	Natural	Natural – mid brown-grey-yellow firm clay.	Overlain by (802); overlies (804); same as (103), (204), (403), (603), (703)	c.0.30m thick	-
(804)	Natural	Natural weathered bedrock – shillet within mid blue-grey firm clay.	Overlain by (803)	1.20+m thick	-
		Trench 10		-	-
(1000)	Layer	Topsoil – mid slightly grey-brown friable clay-silt-loam.	Overlies (1001); same as (1200), (1400), (1500), (1600)	c.0.25m thick	Modern
(1001)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (1000); overlies (1002); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	0.07-0.12m thick	-
(1002)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (1001); overlies (1003), (1007); same as (602), (702), (1202), (1402), (1502), (1602), (1702), (1802), (2003)	0.15-0.40m thick	-
(1003)	Layer	Re-deposited natural - mid grey-brown-yellow friable-soft silt-clay with occasional-common sub- angular stone. Land reclamation layer?	Overlain by (1002); overlies (1004); same as (102), (202), (302)	0.06-0.18m thick	-

(1004)	Layer	Buried topsoil – dark brown friable sand-silt with frequent sub-angular small stone inclusions.	Overlain by (1003); overlies (1005); same as (203), (303)	c.0.10m thick	-
(1005)	River gravels	Mid yellow soft clay with smoothed sub-angular to rounded pebbles, including quartz.	Overlain by (1004); cut by [1006]; overlies (1009)	0.60+m thick	-
[1006]	Cut	Palaeo/river channel – 'linear' channel as appears in the trench (probable sinuous channel) orientated approximately east to west. Measures 38.5+m wide x 1.70+m deep.	Filled by (1007), (1008); cuts (1005)	1.70+m deep	-
(1007)	Layer	Alluvial clay – mid grey soft clay with organic reed and wood inclusions. Merges into (1008).	Overlain by (1002); overlies (1008); fill of [1006]	0.20+m thick	-
(1008)	Layer	Alluvial clay – dark grey soft clay.	Overlain by (1007); fill of [1006]	1.50+m thick	-
(1009)	Natural	Natural – mid brown-yellow soft silt-clay with occasional sub-angular stone inclusions.	Overlain by (1005)	-	-
		Trench 11			
Not excava	ted				
	-	Trench 12			
(1200)	Layer	Topsoil – mid slightly grey-yellow-brown friable clay-silt-loam.	Overlies (1201); same as (1000), (1400), (1500), (1600)	c.0.10m thick	Modern
(1201)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (1200); overlies (1002); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1401), (1501), (1601), (1701), (1801), (2001)	Up to 0.15m thick	-
(1202)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (1201); overlies (1203); same as (602), (702), (1202), (1402), (1502), (1602), (1702), (1802), (2003)	0.40-0.50m thick	-
(1203)	Layer	Alluvial clay – mid slightly greenish-blue-grey soft clay.	Overlain by (1202); overlies (1204)	c.1.20m thick	-
(1204)	Layer	Alluvial clay – mid slightly greenish-blue-grey soft clay with common organic reed and wood inclusions.	Overlain by (1203)	0.40+m thick	-
(1205)	Layer	Alluvial clay – dark black dense clay with rare shell inclusions.	Overlain by (1203)	1+m thick	-
		Trench 13			
Not excava	ted				
		Trench 14			
(1400)	Layer	Topsoil – mid slightly grey-yellow-brown friable clay-silt-loam.	Overlies (1401); same as (1000), (1200), (1500), (1600)	c.0.24m thick	Modern
(1401)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (1400); overlies (1402); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1201), (1501), (1601), (1701), (1801), (2001)	Up to 0.15m thick	-
(1402)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (1401); overlies (1403); same as (602), (702), (1202), (1202), (1502), (1602), (1702), (1802), (2003)	Up to 1.05m thick	-
(1403)	Layer	Alluvial clay – mid slightly greenish-blue-grey soft clay.	Overlain by (1402); overlies (1404); same as (1203, (1503), (1603), (1703)	Up to 0.20m thick	-

(1404)	Layer	Alluvial clay – dark black dense clay with occasional shell inclusions. Slightly greyer to upper interface. Becomes lighter (dark grey rather than black) at the southern end of trench.	Overlain by (1403); overlies (1404)	c.1.05m thick	-
(1405)	Layer	Alluvial clay – mid-light blue-grey soft clay.	Overlain by (1404)	0.10+m thick	-
(1406)	Layer	Alluvial clay – dark grey soft clay.	Overlain by (1404)	1.30+m thick	-
		Trench 15			
(1500)	Layer	Topsoil – mid slightly grey-yellow-brown friable clay-silt-loam.	Overlies (1501); same as (1000), (1200), (1400), (1600)	c.0.25m thick	Modern
(1501)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (1500); overlies (1502); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1201), (1401), (1601), (1701), (1801), (2001)	Up to 0.15m thick	-
(1502)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (1501); overlies (1503); same as (602), (702), (1202), (1202), (1402), (1602), (1702), (1802), (2003)	Up to 0.45m thick	-
(1503)	Layer	Alluvial clay – mid grey soft clay.	Overlain by (1502); overlies (1504); same as (1203), (1403), (1603), (1703)	0.25-0.30m thick	-
(1504)	Layer	Alluvial clay – dark black dense clay.	Overlain by (1503); overlies (1505), {1509}	0.90+m thick	-
(1505)	Layer	Alluvial clay – mid grey soft clay with abundant organic reed, wood and estuarine shell inclusions.	Overlain by (1504); abuts {1509}	0.20-0.25m thick	-
(1506)	Layer	Alluvial clay – mid grey soft clay.	Overlain by (1505); cut by {1509}	0.70+m thick	-
[1507]	Post	Wooden post measuring c.0.15m in diameter and 0.30m long with pointed base and possible cut top. Driven into clay (1506). Part of post-built structure {1509} with post [1508] and additional posts recovered from section collapse.	Abutted by (1505); cuts (1506); part of {1509}	0.30m long	-
[1508]	Post	Wooden post measuring c.0.15m in diameter and 0.40m long with pointed base and possible cut top. Driven into clay (1506). Part of post-built structure {1509} with post [1507] and additional posts recovered from section collapse.	Abutted by (1505); cuts (1506); part of {1509}	0.40m long	-
{1509}	Structure	Wooden post-built structure orientated approximately north-east to south-west. Only identified in section and before trench collapse. Consists of posts [1507] and [1509] along with others recovered from section collapse and identified through impressions in the clay. Posts between 0.30-0.40m long, with pointed bases and apparent cut tops.	Overlain by (1504); abutted by (1505); cuts (1506); formed by [1507], [1508]	0.30-0.40m high	-
		Trench 16			
(1600)	Layer	Topsoil – mid slightly grey-yellow-brown friable clay-silt-loam.	Overlies (1601); same as (1000), (1200), (1400), (1500)	0.08-0.25m thick	Modern
(1601)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (1600); overlies (1602); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1201), (1401), (1501), (1701), (1801), (2001)	0.15-0.30m thick	-
(1602)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (1601); overlies (1603); same as (602), (702), (1202), (1202), (1402), (1502), (1702), (1802), (2003)	0.15-0.35m thick	-

(1603)	Layer	Alluvial clay – mid grey soft clay.	Overlain by (1602); overlies (1604); same as (1203), (1403), (1503), (1703)	0.85-0.95m thick	-
(1604)	River gravel	Light yellow firm slightly sandy clay with abundant sub-rounded gravel.	Overlain by (1603); same as (1806)	0.50+m thick	-
		Trench 17			
(1700)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (1701); same as (100), (200), (300), (400), (500), (600), (700), (800), (1800), (2000)	0.10-0.20m thick	Modern
(1701)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (1700); overlies (1702); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1201), (1401), (1501), (1601), (1801), (2001)	0.15-0.40m thick	-
(1702)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (1701); overlies (1703); same as (602), (702), (1202), (1202), (1402), (1502), (1602), (1802), (2003)	0.20-0.60m thick	-
(1703)	Layer	Alluvial clay – mid grey soft clay.	Overlain by (1702); overlies (1704), (1706); same as (1203), (1403), (1503), (1603)	0.05-1m thick	-
(1704)	Layer	Re-deposited natural - mid grey-brown-yellow friable-soft silt-clay with occasional-common sub- angular stone. Land reclamation layer?	Overlain by (1703); overlies (1705); same as (102), (202), (302), (1003)	Up to 0.10m thick	-
(1705)	Layer	Light brown-yellow soft clay. Possible flooded topsoil layer.	Overlain by (1704); overlies (1707)	0.20-0.25m thick	-
(1706)	Layer	Alluvial clay – mid grey soft clay with organic reed inclusions.	Overlain by (1703); same as (1804)	0.30+m thick	-
(1707)	River gravels	Light brown-yellow soft sandy clay with common sub-rounded gravel.	Overlain by (1705)	0.10+m thick	-
		Trench 18			
(1800)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (1801); same as (100), (200), (300), (400), (500), (600), (700), (800), (1700), (2000)	c.0.15m thick	Modern
(1801)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (1800); overlies (1802); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1201), (1401), (1501), (1601), (1701), (2001)	0.15-0.20m thick	-
(1802)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (1801); overlies (1803); same as (602), (702), (1202), (1202), (1402), (1502), (1602), (1702), (2003)	0.15-0.25m thick	-
(1803)	Layer	Alluvial clay – mid grey soft clay.	Overlain by (1802); overlies (1804); same as (1203), (1403), (1503), (1603), (1703)	0.40-1.05m thick	-
(1804)	Layer	Alluvial clay – mid grey soft clay with organic reed inclusions. Only present at southern end of trench.	Overlain by (1803); overlies (1805); same as (1706)	c.0.25m thick	-
(1805)	Layer	Alluvial clay – mid grey soft slightly gritty clay.	Overlain by (1804); overlies (1806)	c.0.10m thick	-

(1806)	River gravel	Mid grey-yellow soft gritty clay with occasional sub-rounded gravel inclusions.	Overlain by (1805); same as (1604), (2007)	0.10+m thick	-
		Trench 19			
Not excava	ted				
		Trench 20			
(2000)	Layer	Topsoil – mid grey-brown soft-friable clay-silt.	Overlies (2001); same as (100), (200), (300), (400), (500), (600), (700), (800), (1700), (1800)	c.0.15m thick	Modern
(2001)	Layer	Lower topsoil – mid grey-brown friable-soft silt-clay with occasional sub-angular stone inclusions. Suggests slightly waterlogged topsoil.	Overlain by (2000); overlies (2002); same as (101), (201), (301), (401), (501), (601), (801), (1001), (1201), (1201), (1401), (1501), (1601), (1701), (1801)	0.15m thick	-
(2002)	Layer	Mid brown soft clay. Possible flooded topsoil layer?	Overlain by (2001); overlies (2003)	0.10-0.15m thick	-
(2003)	Layer	Mixed alluvial clay – mixed mid brown and brown-grey soft clay with occasional sub-angular to sub-rounded stone. Possible reclamation layer spreading topsoils across alluvial clays.	Overlain by (2002); overlies (2004); same as (602), (702), (1202), (1202), (1402), (1502), (1602), (1702), (1802)	0.20-0.25m thick	-
(2004)	Layer	Alluvial clay – mid grey soft clay.	Overlain by (2003); overlies (2005); same as (1203), (1403), (1503), (1603), (1703), (1803)	0.45-0.75m thick	-
(2005)	Layer	Alluvial clay – mid grey soft clay with organic reed and estuarine shell inclusions. Only present at southern end of trench.	Overlain by (2004); overlies (2006); same as (1706), (1804)	c.0.30m thick	-
(2006)	Layer	Alluvial clay – mid grey soft slightly gritty clay with organic reeds inclusions.	Overlain by (2005); overlies (2007)	0.10-0.20m thick	-
(2007)	River gravel	Mid grey-brown soft sandy clay with occasional sub-rounded gravel inclusions.	Overlain by (2006); same as (1604), (1806)	0.60+m thick	-

APPENDIX 2: FINDS CONCORDANCE

Context	Pottery						Other	Date
	Sherds	Wgt. (g)		Notes	Frags.	Wgt. (g)	Notes	
(1200)	1		44	Ironstone china sanitary ware, later 19 th century				19 th century
(1200)	1		20	Brown glazed teapot fragment, later 18 th century				18 th century
(1800)	1		16	White refined earthenware, plate rim with blue transfer print, flow blue	1	8	Glass – clear vessel glass, square condiment bottle	19 th century
(1803)					1	2587	Polished (quern?) stone fragment (half), possibly used as fishing weight/anchor	Roman, possibly re- used as fishing weight
TOTALS	3		80		2	2595		

APPENDIX 3: ENVIRONMENTAL SAMPLES

Sample No.	Context	Feature Type	Sample Type	No. Bags/Buckets	% Fill/Feature	Date	Initials	Comments in the Field	Processed?	Comments During Processing	Macrofossils?
1	(1505)	Alluvial clay deposit	Bulk	2 buckets	-	02.07.20	PW	Alluvial clay with organic reed/wood and shell	No	-	-
2	{1509}	Structure	Wooden posts	1 bucket	-	02.07.20	PW	Wooden posts recovered from section collapse (mixed stratigraphic deposits)	No	-	-
3	(1505)	Alluvial clay deposit	Bulk	1 bag	-	02.07.20	PW	Includes fragments of wooden posts forming part of {1509}	No	-	-
4	(1706)	Alluvial clay deposit	Bulk	3 buckets	-	03.07.20	PW	Alluvial clay with organic reed/wood and shell	No	-	-
5	(1805)	Alluvial clay deposit	Bulk	2 buckets	-	06.07.20	PW	Alluvial clay with organic reed/wood and shell	No	-	-
6	(2005)	Alluvial clay deposit	Bulk	2 buckets	-	06.07.20	PW	Alluvial clay with organic reed/wood and shell	No	-	-

APPENDIX 4: TRENCH PLAN OVERLAID ON PROPOSALS



APPENDIX 5: RESULTS OF GEOARCHAEOLOGICAL CORING By Dr. T. Davies

Methodology

Two core samples were retrieved by hand using a Russian Corer to the north of the existing embankment in the southern area of the site. It was intended that samples be collected from adjacent to RRG's previous boreholes in this area (WS1 and WS2) (RRG 2020), but the markers left by the borehole survey were no longer visible on the ground. Therefore, coring locations were established by comparing GPS locations on the Google Maps phone app with the borehole location plan. The two coring sites were subsequently recorded using a hand held Garmin GPSMAP 64.

The individual 50cm core segments were extracted into plastic guttering and wrapped in cling film to avoid contamination and placed in cold storage for preservation. The field record of individual core segments included a photograph and rudimentary description of deposits, which included colour, texture and inclusions. It should be noted that the surface of these core segments were not cleaned in detail in the field. Therefore, some details of stratigraphic change may not have been recognised in the field that may potentially come to light during detailed examination of their stratigraphy under controlled laboratory conditions.

Results

Coring site coordinates are shown in Table 1, including an estimate of their altitude based on the DTM 1m resolution LiDAR data of the study area. The field descriptions for the two cores are provided in Table 2 and a summary stratigraphic diagram is provided in Figure 17.

Core ID	Easting	Northing	Altitude (mOD) ¹	Coring depth (m below surface)	Coring depth level (mOD) ¹
1	241722	64296	1.00	2.98	-1.98
2	241736	64295	1.00	3.02	-2.02
1. Approximate values based on LiDAR data from surface levels of coring sites					

Similar coring depths were obtained for both sampling sites, reaching a depth of 2.98 and 3.02m or a level of -1.98mOD and -2.02mOD for cores 1 and 2 respectively. The sediments within these cores are also relatively similar, though the deposits within the upper c.0.18-0.27m are more varied in character than their lower sediments. These upper sequence of deposits in both cores consist of a mixture of sandy clays, silts and peat, but their colour and consistency varies between the two coring sites. This degree of variation is not unexpected as these upper deposits are likely to represent deposits re-deposited from the excavation of the ditch immediately to the north or material eroded from the embankment immediately to the south. The latter interpretation is the more likely candidate as this hypothesis is supported by the horizontal bedding of these layers (see Figures 3 and 4), which would unlikely form during the process of being redeposited from the excavation of the ditch. The lowest of these upper, more varied layers, at both coring sites consist of a peaty silt and peat deposit (Cores 1 and 2 respectively) that may have formed in situ prior to the construction of the adjacent flood defences. All layers beneath these peaty deposits are consistent across both coring sites in both colour and texture. Their depths and levels, for the most part, are deeper in Core 2 in comparison with Core 1. However, this depth variation is consistent with fluctuations in surface levels across the site as observed in LiDAR data and is therefore believed to represent natural slope variation as opposed to differences in sediment formation processes (e.g. truncation). These lower deposits consist of an upper mottled light orange and mid grey clay overlying gray clay deposits that get darker and coarser in texture with depth. From a level of -0.175mOD and -0.31mOD (units 1.12 in Core 1 and 2.10 in Core 2), laminations of mid-dark grey clay and very dark grey organic rich fine sandy silty clay are observed for c.1m in depth, with increased frequency of the darker laminations towards the base of the unit. In both cores, lighter

TABLE 1: CORING SITES LOCATION AND DEPTH

grey fine sandy clay deposits are noted beneath the organic rich layer for a further c.60cm, below which an organic rich silty clay is recorded to the base of both cores.

The coring depths achieved by the current work is similar to that achieved by the previous geotechnical work at window sample sites WS1 and WS2 (RRG 2020), though there are differences in the descriptions of the deposits. For example, RRG note the presence of dark grey to black silty and sandy clay deposits from 1.83 to -1.77mOD (WS1) and 2.3 to -1.8 mOD (WS2) which they describe as salt marsh deposits, which cannot be directly attributed to any specific layer in the current work. Nevertheless, this simplified description could potentially apply to all the deposits beneath 0.64m in Core 1 and 0.67m in Core 2 which are described as mid grey to very dark grey sandy and silty clays in the current study. There is, however, a level discrepancy of more than 1.79m between the recorded levels of the top of these deposits. It is, however, possible that this difference is the result of re-deposited salt marsh deposits used in the construction of the bank. Indeed, RRG note the presence of made ground above these deposits used in its construction, but may not have been able to differentiate between intact and re-deposited salt marsh deposits using a narrow window sampler. This theory is also supported by the fact that the upper range of the 'salt marsh deposits' noted by RRG in WS1, at 1.83mOD, is higher than the current level of all the former floodplain north of the embankment.

Despite the differences in the recorded levels of deposits between the current work and the RRG study, there is consensus regarding the formation processes of these deposits. The gray clay, sandy clay and silty clay deposits noted by booth studies are typical of the deposits accumulating in salt marsh conditions (cf. Waters 1992: 258-9). The waterlogged condition of these deposits is ideal for the preservation of organic remains, providing a stratified chronological sequence of palaeoenvironmental evidence. As with all alluvial deposits, a degree of secondary deposition should be expected within these sediments (cf. Moore et al 1991: 25), but successful reconstruction of broad historical environmental changes can be achieved through the analysis of such material (e.g. Burrin & Scaife 1984, Long et al. 1999). A chronological range for these deposits could be established by radiocarbon dating of the upper peat deposits and material within the darker clay deposits with increased organic content. However, before any detailed analysis is attempted on these deposits, consideration should be given to sediment formation processes that could affect the reliability of palaeoenvironmental reconstruction. Establishing pollen preservation levels and the chronological range of sediments should also be undertaken as part of an assessment of their research potential. Given the similarity of the sediments within both cores collected for this study, it is believed that they cover a similar chronological range and would therefore represent an identical record of environmental change within this landscape. It is therefore believed that any assessment of research potential should focus on any and only one of these cores.



FIGURE 17: CORE 1 AND 2 STRATIGRAPHY DIAGRAMS

Conclusion

The two cores collected from South Hooe potentially represent an important palaeoenvironmental record of the lower reaches of the River Tamar. The waterlogged nature of the sediments within these cores could contribute to our understanding of changes in land use surrounding the sampling sites as well as salt marsh development along the River Tamar. It is advised that one of these cores be subject to an assessment of their research potential as follows:

- Radiocarbon dating to assess the chronological range of the core.
- **Geoarchaeological assessment** to provide a detailed description of the core to assess deposit formation processes that may affect the reliability of palaeoenvironmental data.
- **Pollen assessment** to establish pollen preservation levels and assess the core's potential to contribute to wider environmental research.

APPENDIX 6: RADIOCARBON DETERMINATION REPORT



Monday, 07 December 2020

Report on Radiocarbon Age Determination for BRAMS-4239

Submitter:	Sam Walls
Submitter's Code:	Timber sample
Project:	Timber
Sample material:	Wood
Pretreatment Code:	ВАВАВ

F ¹⁴ C	0.8802± 0.0015
Result	1025 ± 14 BP
Indicative $\delta^{13}C$	-27.0 ‰

The result is given in uncalibrated radiocarbon years Before Present (BP). Data given are corrected for isotopic fractionation using the ${}^{13}C/{}^{12}C$ ratio measured on the AMS. The $\delta^{13}C$ value was measured on the AMS and may have been subject to additional isotopic fractionation. The error associated with this value is typically ±1‰.

Calibration Plot

Calibration was performed using OxCal software v4.4 and the IntCal20 atmospheric calibration curve



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APPENDIX 7: ADDITIONAL SUPPORTING PHOTOGRAPHS



1. SITE VIEW ACROSS FIELD 1; VIEWED FROM THE NORTH-EAST.



2. VIEW ACROSS FIELD 1 TO PENTILLIE CASTLE; VIEWED FROM THE SOUTH-EAST.



3. SITE VIEW ACROSS FIELD 2; VIEWED FROM THE WEST.



4. SITE VIEW ACROSS FIELD 2; VIEWED FROM THE NORTH-WEST.



5. VIEW FROM FIELD 2 TO PENTILLIE CASTLE; VIEWED FROM THE SOUTH-EAST.



6. TRIAL-PIT 01, NORTH-EAST FACING SECTION; VIEWED FROM THE NORTH-EAST (2M SCALE).



7. TRIAL-PIT 01, POST-EXCAVATION; VIEWED FROM THE SOUTH-EAST (2M SCALE).



8. TRIAL-PIT 02, NORTH-EAST FACING SECTION; VIEWED FROM THE NORTH-EAST (2M SCALE).



9. TRIAL-PIT 02, POST-EXCAVATION; VIEWED FROM THE EAST (2M SCALE).



10. Trial-pit 03, North-east facing section; viewed from the North-east (2m scale).



11. TRIAL-PIT 03, POST-EXCAVATION; VIEWED FROM THE EAST (2M SCALE).



12. TRIAL-PIT 04, NORTH-EAST FACING SECTION; VIEWED FROM THE NORTH-EAST (2M SCALE).



13. TRIAL-PIT 04, POST-EXCAVATION; VIEWED FROM THE EAST (2M SCALE).



14. TRIAL-PIT 05, NORTH-EAST FACING SECTION; VIEWED FROM THE NORTH-EAST (2M SCALE).



15. TRIAL-PIT 05, POST-EXCAVATION; VIEWED FROM THE EAST (2M SCALE).



16. TRIAL-PIT 06, NORTH-NORTH-EAST FACING SECTION; VIEWED FROM THE NORTH-NORTH-EAST (2M SCALE).



17. TRIAL-PIT 06, POST-EXCAVATION; VIEWED FROM THE EAST (2M SCALE).



18. TRIAL-PIT 07, NORTH-NORTH-EAST FACING SECTION; VIEWED FROM THE NORTH-NORTH-EAST (2M SCALE).



19. TRIAL-PIT **07**, POST-EXCAVATION; VIEWED FROM THE EAST (2M SCALE).



20. TRIAL-PIT 08, NORTH-EAST FACING SECTION; VIEWED FROM THE NORTH-EAST (2M SCALE).



21. TRIAL-PIT 08, POST-EXCAVATION; VIEWED FROM THE EAST (2M SCALE).



22. TRENCH 10, EAST FACING SECTION, NORTH SONDAGE; VIEWED FROM THE EAST-NORTH-EAST (2M SCALE).



23. (LEFT) TRENCH 10, EAST FACING SECTION, SOUTH SONDAGE; VIEWED FROM THE EAST-NORTH-EAST (2M SCALE).

 $\label{eq:24. (Right) Trench 10, post-excavation; viewed from the south (2m scale).$



25. TRENCH 12, SOUTH-WEST FACING SECTION, NORTH SONDAGE; VIEWED FROM THE SOUTH-WEST (2M SCALE).



26. (LEFT) TRENCH 12, SOUTH-WEST FACING SECTION, SOUTH SONDAGE; VIEWED FROM THE WEST (PART 2M SCALE).27. (RIGHT) TRENCH 12, POST-EXCAVATION; VIEWED FROM THE SOUTH-EAST (2M SCALE).



28. TRENCH 14, SOUTH-WEST FACING SECTION, NORTH SONDAGE; VIEWED FROM THE SOUTH-WEST (2M SCALE).



29. TRENCH 12, SOUTH-WEST FACING SECTION, SOUTH SONDAGE; VIEWED FROM THE WEST (2M SCALE).



30. TRENCH 14, POST-EXCAVATION; VIEWED FROM THE SOUTH-EAST (2M SCALE).



31. TRENCH 15, SOUTH-WEST FACING SECTION, NORTH SONDAGE; VIEWED FROM THE SOUTH-WEST (2M SCALE).



32. TRENCH 15, SOUTH-WEST FACING SECTION, SOUTH SONDAGE; VIEWED FROM THE SOUTH-WEST (2M SCALE).



33. TRENCH 15, POST-EXCAVATION; VIEWED FROM THE SOUTH-EAST (2M SCALE).



34. TRENCH 16, SOUTH-EAST FACING SECTION, SOUTH SONDAGE; VIEWED FROM THE SOUTH-EAST (2M SCALE).



35. TRENCH 16, SOUTH-EAST FACING SECTION, NORTH SONDAGE; VIEWED FROM THE SOUTH-EAST (2M SCALE).



36. TRENCH 16, POST-EXCAVATION; VIEWED FROM THE NORTH-EAST (2M SCALE).



37. TRENCH 17, SOUTH FACING SECTION, WEST SONDAGE; VIEWED FROM THE SOUTH (2M SCALE).



38. TRENCH 17, SOUTH FACING SECTION, MIDDLE SONDAGE; VIEWED FROM THE SOUTH (2M SCALE).



39. TRENCH **17**, SOUTH FACING SECTION, EAST SONDAGE; VIEWED FROM THE SOUTH (2M SCALE).



40. TRENCH 17, POST-EXCAVATION; VIEWED FROM THE EAST (2M SCALE).



41. TRENCH 18, SOUTH-WEST FACING SECTION, NORTH SONDAGE; VIEWED FROM THE SOUTH-WEST (2M SCALE).



42. TRENCH 18, SOUTH-WEST FACING SECTION, SOUTH SONDAGE; VIEWED FROM THE SOUTH-WEST (2M SCALE).



43. TRENCH 18, POST-EXCAVATION; VIEWED FROM THE SOUTH-EAST (2M SCALE).



44. TRENCH 20, SOUTH-WEST FACING SECTION, NORTH SONDAGE; VIEWED FROM THE SOUTH-WEST (2M SCALE).



45. TRENCH 20, SOUTH-WEST FACING SECTION, SOUTH SONDAGE; VIEWED FROM THE SOUTH-WEST (2M SCALE).



46. TRENCH 20, POST-EXCAVATION; VIEWED FROM THE SOUTH-EAST (2M SCALE).



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