Archaeology Wales

Atlantic Trading Estate Recycling Facility Barry, Vale of Glamorgan

Archaeological Field Evaluation



By Charley James-Martin MCIfA

Report No.1874





Archaeology Wales

Atlantic Trading Estate Recycling Facility Barry, Vale of Glamorgan

Archaeological Field Evaluation

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Non-technical Summary

In January 2020 Archaeology Wales Ltd were commissioned by Vale of Glamorgan Council to undertake a programme of intrusive trial trench evaluation in advance of the development of a new resource recovery facility on the land at Atlantic Trading Estate, Plot C, Atlantic Crescent, Barry, Vale of Glamorgan, CF63 3RF, NGR ST 13381 67276.

The programme of intrusive trial trenching allowed for eight trenches, each measuring 20m by 1.8m. These trenches were placed to compliment previously excavated trenches from an earlier evaluation (Wessex Archaeology 2006), which were located to the west and south east of the site.

The sandy clay natural was reached in all eight trenches. One trench (Trench 7) encountered probable asbestos so limited recording was possible. During the evaluation no features or deposits of archaeological interest were encountered. The natural was reached at depths varying from 6.85m OD to 9.16m OD but was found at an average of 8.14m OD.

All work conformed to Standard and Guidance for Archaeological Field Evaluation (ClfA, 2014) and Standards and Guidance for Archaeological Artefact and Environmental Collection, Documentation Conservation and Research (ClfA, 2014).

Crynodeb Annhechnegol

Ym mis Ionawr 2020, comisiynwyd Archaeology Cymru Cyf gan Gyngor Bro Morgannwg i ymgymryd â rhaglen o werthuso ffosydd prawf ymwthiol cyn y gwaith o ddatblygu cyfleuster adfer adnoddau newydd ar dir Ystâd Masnach yr Iwerydd, Llain C, Ceunant yr Iwerydd, Y Barri, Bro Morgannwg, CF63 3RF, NGR ST 13381 67276.

Roedd y rhaglen o gloddio ffosydd prawf ymwthiol yn cynnwys wyth ffos, gyda phob un yn mesur 20m wrth 1.8m. Cafodd y ffosydd hyn eu lleoli er mwyn cyd-fynd â'r ffosydd a gloddiwyd ar gyfer gwerthusiad blaenorol (Wessex Archaeology 2006), a oedd wedi'u lleoli yn rhannau gorllewinol a de-ddwyreiniol y safle.

Cyrhaeddwyd y clai tywod naturiol ym mhob un o'r wyth ffos. Cafwyd hyd i'r hyn allai fod yn asbestos mewn un ffos (Ffos 7), felly cafwyd cofnodion cyfyngedig arno. Yn ystod y gwerthusiad, ni chanfuwyd unrhyw nodweddion neu waddodion o ddiddordeb archeolegol. Cyrhaeddwyd y clai naturiol ar ddyfnderoedd a oedd yn amrywio o rhwng 6.85m OD a 9.16m OD, ond fe'i canfuwyd ar gyfartaledd ar ddyfnder o 8.14m OD.

Roedd yr holl waith yn cydymffurfio â'r Safonau a'r Canllawiau ar gyfer Gwerthusiadau Maes Archaeolegol (Sefydliad Siartredig yr Archeolegwyr, 2014) a'r Safonau a'r Canllawiau ar gyfer Casglu Arteffactau Archeolegol ac Amgylcheddol, Gwarchod Dogfennau ac Ymchwil (Sefydliad Siartredig yr Archeolegwyr, 2014).

1 Introduction

- 1.1.1 In January 2020 Archaeology Wales Ltd (AW) were commissioned by Vale of Glamorgan Council to undertake a programme of intrusive trial trench evaluation in advance of the development of a new resource recovery facility on the land at Atlantic Trading Estate, Plot C, Atlantic Crescent, Barry, Vale of Glamorgan, CF63 3RF, NGR ST 13381 67276 (Figure 1).
- 1.1.2 The programme of intrusive trial trenching allowed for eight trenches, each measuring 20m by 1.8m. These trenches were placed to compliment previously excavated trenches from an earlier evaluation (Wessex Archaeology 2006), which were located to the west and south east of the site (Figure 2).
- 1.1.3 This work was undertaken in the pre-planning stage to determine the nature and extent of any archaeological remains. The proposed development consists of buildings, storage bays, works areas and an access road with weighbridge and drive through vehicle wash. It would include foundation excavation, landscaping, services and all other associated infrastructure.
- 1.1.4 A Written Scheme of Investigation (WSI) was written by Dr Susan Stratton (AW Project Officer) at the request of the Vale of Glamorgan Council (Appendix V). This WSI was subsequently accepted by the Glamorgan-Gwent Archaeological Trust-Archaeological Planning Management (GGAT-APM) in its capacity as archaeological advisors to Vale of Glamorgan Council.
- 1.1.5 The evaluation was conducted under the supervision of Susan Stratton, assisted by James Evans (PCIfA) of AW. The project was managed by Charley James-Martin (AW Project Manager, MCIfA).
- 1.1.6 All work was undertaken to the standards and guidance set by the Chartered Institute for Archaeologists (2014). AW is a Registered Organisation with the CIFA.

2 Site Description

2.1 Site Description

2.1.1 The development area is located on the Atlantic Trading Estate, Barry, 1.5km to the south-west of Barry town centre and within 200m of the coastline. It is centred on NGR ST 13381 67276. The development area is an irregularly shaped piece of land currently covered by long grass and low scrub. It is bounded to the east and west by already established industrial estate plots and to the north-west and south by roads of the trading estate.

2.2 Geology

2.2.1 The geology beneath the proposed development area consists of the Triassic Mercia Mudstone Group. This group typically comprises red or green-grey mudstones and siltstones. However, in the area underlying the site it is more variable and comprises

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conglomerate and/or breccia which are derived from underlying rocks. These are a mixture of siltstones, sandstones and micritic limestone. No superficial deposits are recorded for the area (BGS, 2020).

3 Archaeological and Historical Background

Prehistoric: Palaeolithic (c.450,000 – 10,000 BC), Mesolithic (c.10,000 – 4000 BC), Neolithic (4000 BC – 2500 BC), Bronze Age (2500 BC – 700 BC)

- 3.1.1 There is evidence of human activity in the vicinity of the development area from the Mesolithic period. Four Mesolithic findspots are located within 3km of the development area, including three flint scatters (PRN 00775s, 00776s and 00777s) and perforated bone needles (PRN 00548s). Evidence of Neolithic activity in the wider area is also demonstrated by flint scatters, with numerous findspots being recorded around 3km from the development area, principally to the north and north-west.
- 3.1.2 Bronze Age discoveries were made during the initial construction of the Atlantic Trading Estate from 1987-1990. These included the remains of a Bronze Age settlement, comprising a roundhouse and associated stake-built structures and pits (PRN 01997s) located roughly 200m to the west of the development area. A Bronze Age round barrow (GM310) is located 300m to the north-west of the site.

Iron Age (700 BC – AD 43) & Roman (AD 43 – c. AD 410)

- 3.1.3 There is little evidence for Iron Age occupation in the area. A four-post structure found on the Bronze Age settlement site (PRN 01997s) was thought to date to the Iron Age.
- 3.1.4 Immediately to the north of the development area the discovery of what appears to have been an early Christian cemetery was made during the construction of an army camp between 1931 and 1938. Several discoveries of human remains were made, including decorated lead lined coffins (PRN 02276s), a cist lined grave (PRN 02390s) and cremations in glass vessels. Gold, silver and copper coins were also found, some of which dated to the 3rd century AD. When considered together these remains potentially represent part of a larger cemetery.
- 3.1.5 A further lead lined coffin was discovered in 1942-3 during sand extraction, 300m to the north-west of the development area (PRN 02384s). It is thought that the finds were reburied in situ. The discovery of a Roman coin hoard of 300 coins has also been made in Sully (PRN 02181s), although the exact location is unknown.

Early Medieval (c. AD 410 - AD 1086) & Medieval (1086 - 1536)

3.1.6 Evidence for Early Medieval and Medieval activity in the near vicinity of the development area is low, consisting of scattered Medieval pottery finds (PRN 00971s) roughly 300m to the north.

Post-Medieval (1536 – 1899) & Modern (1900 – present day)

- 3.1.7 A post-medieval farm and mill were situated within 1km to the north-west of the development area (Williams 1993). The complex was built by Evan Thomas of Llynmadoc around 1813. The windmill mound survives and is Grade II listed (LB 16840).
- 3.1.8 Significant modern assets within the vicinity of the development area are related to Second World War activity. Hayes Farm military camp (PRN 04413s) (Williams 1993), was located roughly 600m to the north-west of the development area. It was constructed between 1930-1940 and became an American Army camp in 1942. A storehouse (PRN 02707s), part of the American WWII military Supply and Reserve Depot, was constructed in 1938.

3.2 Previous investigations

- 3.2.1 In 2006 Wessex Archaeology carried out an archaeological evaluation that partially extended over the current site area (Wessex Archaeology 2006). Five trenches were excavated, two within the current site boundary (Figure 2), and three to the east, in what is now Barry Recycling Centre. No archaeological features were encountered, with all five trenches encountering made ground deposits originating from the construction of the Supply and Reserve Depot and then its demolition in the late 20th century.
- 3.2.2 Various archaeological watching briefs have also been carried out in the vicinity of the development area and have encountered few archaeological remains. An undated possible stone causeway (PRN E002444) was found immediately to the north of the development area (Turner 1999). The results of other watching briefs carried on the Atlantic Trading Estate (e.g. Dunning 2013, Harris 2009, Locock 1997, Stafford 2016 and Thomas 2017) have encountered made ground or no archaeology, despite the high archaeological potential indicated by the presence of the known assets detailed above.

4 Aims and Objectives

- 4.1.1 The objective of the intrusive evaluation was to locate and describe, by means of strategic trial trenching, archaeological features that may be present within the development area. The work aimed to elucidate the presence or absence of archaeological material, its character, distribution, extent, condition and relative significance.
- 4.1.2 The objective of the evaluation was to result in a report to provide information of sufficient detail and may result with the definition of further mitigation measures which can safeguard the archaeological resource. Preservation *in situ* was advocated where at all possible, but where engineering or other factors result in loss of archaeological deposits, preservation by record will be recommended.

5 Methodology

5.1.1 Eight trenches, each measuring approximately 20m by 1.8m were located within the

proposed development area to assess the presence/absence of sub-surface remains. The trenches have been located to compliment the previously excavated trenches from the 2006 evaluation, which were located to the west (Trench 1) and south-east (Trench 2) of the current site. The size and location of the trenches were agreed with GGAT-APM before the commencement of works.

- 5.1.2 The evaluation trenches were machine excavated using a toothless grading bucket. The trenches were excavated until the natural substrate was reached and confirmed. All areas were subsequently hand cleaned using pointing trowels to prove the presence, or absence, of archaeological features and to determine their significance.
- 5.1.3 Recording was carried out using AW recording systems (pro-forma context sheets etc) using a continuous number sequence for all contexts. Plans and sections were drawn to a scale of 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.
- 5.1.4 All features identified were tied into the OS survey grid and fixed to local topographical boundaries.
- 5.1.5 Photographs were taken in digital format with an appropriate scale, using a 12MP camera with photographs stored in Tiff format.
- 5.1.6 All work conducted met the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Field Evaluation (CIFA, 2014).

6 Evaluation results

6.1 Introduction

6.1.1 The general stratigraphy across the area consisted of a series of made ground deposits overlying silty clay natural. No cut features were encountered except for modern service trenches.

6.2 Trench 1

- 6.2.1 The underlying natural (104) was encountered in Trench 1 at a depth of around 1.05m from the current ground surface. It was a firm mid brownish red silty clay and was exposed to a maximum depth of 0.3m.
- 6.2.2 The natural (104) was overlain by a soft dark greyish brown clay loam layer (103). It had an average thickness across the trench of 0.2m. This deposit may represent a buried topsoil which was an earlier ground surface before modern disturbance and deposition of modern material.
- 6.2.3 At the north-west end of the trench an electric cable trench [105] containing fill (106) was encountered cut into deposit (103). It is likely that the cut originated higher in the stratigraphic sequence, but the mixed nature of the upper made ground deposits made

this difficult to determine. The cut was not excavated.

6.2.4 Overlying deposit (103) was a series of modern made ground deposits (100-102). Deposit (102) measured 0.21m in depth and was a firm mid brown grey silty sand. This deposit was overlain by (101) which was a firm mid brown yellow clay with a depth of 0.26m. The uppermost deposit was a firm yellow brown sandy clay (100) with a depth of 0.43m. Deposits (100)-(102) contained large quantities of modern debris.

6.3 Trench 2

- 6.3.1 The basal deposit of Trench 2 was the firm red brown silty clay natural (205) which was encountered at an average of 0.9m from the current ground surface. It was exposed for a maximum depth of 0.2m.
- 6.3.2 The natural was overlain by deposit (202) which measured a maximum of 0.3m in depth. This deposit was a pinkish brown silt containing very frequent angular stones as well as modern debris. Overlying deposit (202) at the south western end of the trench was a layer of black silt containing a high quantity of slag (201). The deposit measured up to 0.3m in depth, however this became thinner towards the eastern part of the trench. Overlying deposit (201) was a pinkish brown stony deposit (203), found only in the central part of the trench. It measured a maximum of 0.6m in depth and appeared to fill a depression in the natural, there doesn't appear to be a cut through the natural although this is a possibility.
- 6.3.3 Overlying deposit (203) was a dark pink silty clay (204) with a maximum depth of 0.3m. This is possibly redeposited natural and also fills the depression in the centre of the trench. Deposit (204) underlay the uppermost deposit of loose clay silt (200) with frequent rubble and modern material (plastic, wire fencing). This deposit measured up to 0.8m in depth.

6.4 Trench 3

- 6.4.1 The basal deposit of Trench 3 was the brownish red silty clay natural (307). This was encountered at 0.82m from the existing ground level. The natural was exposed for a depth of 0.2m.
- 6.4.2 The natural was overlain by a deposit of dark grey brown silty clay (306). This deposit measured 0.18m in depth and possibly represents a buried former land surface. Cut through deposit (306) was a trench for the installation of an electricity cable [308] containing a deposit of black brown silty clay (309).
- 6.4.3 Overlying deposit (306) was a linear formed from at least five concrete slabs (303), each measuring 0.1m by 0.1m by 1.0m. The purpose of these is unknown.
- 6.4.4 Overlying the slabs was a deposit of firm yellow red clay (305) that measured 0.07m in depth. This extended approximately 3m to the west of the concrete linear. This possibly represents a former land surface.

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- 6.4.5 Deposit (305) underlay a deposit of coal dust, coal and slag (304) which measured up to 0.3m in depth but undulated across the trench. This deposit was seen either side of the concrete feature.
- 6.4.6 Overlying deposit (304) and the fill of the electrical cable trench (309) was a loose mixed deposit of dark brown/red brown silty clay (301). This deposit had a depth of 0.35m and contained modern material (plastic and metal).
- 6.4.7 The uppermost deposit was a thin topsoil deposit (300) of blackish grey silt loam that had a depth of 0.2m.

6.5 Trench 4

- 6.5.1 The basal deposit in Trench 4 comprised a firm orange brown silty clay natural (403). This was encountered at 0.9m from the existing ground level and was exposed for a depth of 0.1m.
- 6.5.2 Deposit (403) was overlain by a friable black deposit containing high quantities of slag (402) with a depth of 0.28m. This deposit contained modern material including plastic.
- 6.5.3 Overlying deposit (402) was a deposit of orange brown silty sand (401) with a depth of 0.37m. This was overlain by the greyish brown silt loam topsoil (400) that had a depth of 0.25m.

6.6 Trench 5

- 6.6.1 The basal deposit was the orange brown sandy clay natural (503) which was encountered at 1.05m below the existing ground level and was exposed for 0.12m. Overlying (503) was a dark brown/black silty sand (502) containing small pieces of slag that had a depth of 0.6m.
- 6.6.2 Overlying this deposit was the orange brown silty sandy clay (501) with a depth of 0.2m which was overlain by the grey brown silt loam topsoil (500) that had a depth of 0.35m. Deposit (501) contained a number of ceramic electrical insulators.

6.7 Trench 6

- 6.7.1 The basal deposit in Trench 6 was the light grey brown silty sand natural (603). The natural was encountered at 0.7m below the existing ground level and was exposed for a depth of 0.3m. This deposit was overlain by a 0.3m deep deposit of dark red brown silty sand (602) containing plastic.
- 6.7.2 Deposit (602) was overlain by a firm grey silty sand (601) with a depth of 0.1m containing frequent modern debris. The uppermost deposit was the light grey brown silt loam topsoil (600) that had a depth of 0.3m

6.8 Trench 7

6.8.1 Trench 7 encountered a red brown deposit which appeared to be the natural, and was

excavated to approximately 1m below the current ground level. The overlying deposit contained modern looking material. Due to potential asbestos being encountered within the trench no formal recording was undertaken.

6.9 Trench 8

- 6.9.1 The basal deposit encountered at 0.74m from the current ground surface was the light grey yellow sandy natural (802) which was exposed for a depth of 0.36m.
- 6.9.2 Cut into the natural near the western part of the trench was a linear feature [803] that measured approximately 0.35m in width and 0.3m in depth. The contained a dark orange brown silty clay (804).
- 6.9.3 Overlaying this feature was the orange brown silty clay subsoil which had a depth of 0.42m (801). This was overlain by the uppermost deposit of the grey brown topsoil (800) that measured 0.32m in depth. The topsoil contained modern pottery, glass and iron.

7 The Finds

7.1.1 A total of 14 artefacts weighing 1.223 kg were recovered from Trenches 5, 6 and 8. Demonstrably modern materials were noted and discarded on site. All finds are listed in the finds inventory table in Appendix IV.

8 Environmental

8.1.1 No deposits were assessed as having paleo-environmental potential were encountered during the evaluation, therefore no samples were taken.

9 Conclusion

9.1.1 The sandy clay natural was reached in all eight trenches. One trench (Trench 7) encountered probable asbestos so limited recording was possible. During the evaluation no features or deposits of archaeological interest were encountered. The natural was reached at depths varying from 6.85m OD to 9.16m OD but was found at an average of 8.14m OD.

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Appendix I Figures







Figure 3. Representative sections of Trenches 1, 2 and 3





Figure 4. Representative sections of Trenches 4, 5, 6 and 8



Appendix II Plates



Plate 1. Trench 1 – south facing, 2m & 1m scale



Plate 2. South-east facing section of Trench 1, 2m scale





Plate 3. Trench 2 – west facing, 2m & 1m scale



Plate 4. North facing section of Trench 2, 2m scale





Plate 5. Trench 3 – north facing, 2m & 1m scale



Plate 6. South-west facing section of Trench 3, 2m scale





Plate 7. Trench 4 – north facing, 2m & 1m scale



Plate 8. East facing section of Trench 4, 2m scale

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Plate 9. Trench 5 – south facing, 2m & 1m scale



Plate 10. East facing section of Trench 5, 2m scale





Plate 11. Trench 6 – south facing, 2m & 1m scale



Plate 12. East facing section of Trench 6, 2m scale





Plate 13. Trench 7 – south facing



Plate 14. Trench 8 – east facing, 2m & 1m

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Plate 15. South facing section of Trench 8, 2m scale



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Appendix III Context Inventory

Context	Context		Period
Number	Туре	Description	
		Moderately firm mid yellow brown sandy clay. Frequent	Modern
100	Layer	inclusions of medium stones and modern rubble	
101	Layer	Firm mid brown yellow clay. Rare inclusions of small stones	Modern
		Moderately firm mid brown grey silt/sand clay. Frequent Moder	
102	Layer	inclusions of small stones	
		Soft dark grey brown clay loam. Occasional small stones.	PM/ Modern
103	Layer	Possible buried topsoil under made ground deposits	
104	Layer	Firm mid brown red silty clay. No inclusions. Natural	Natural
105	Cut	Cut of linear (cable)	Modern
106	Fill	Fill of linear for cable	Modern
		Moderate mixed mid brown grey, mid pinkish brown clay	Modern
200	Layer	silt. Frequent inclusions of large stones	
		Loose dark black, silt. Very frequent inclusions of slag	Modern
201	Layer	fragments	
		Moderate mid pinkish brown silt. Very frequent inclusions of	Modern
202	Layer	angular limestone	
		Loose mid pinkish brown silt. Very frequent inclusions of	Modern
203	Layer	angular stones	
		Loose dark white pink silty clay. Frequent inclusions of	Modern
204	Layer	angular sandstone	
		Firm mid red brown silty clay. Frequent inclusions of	Natural
205	Layer	sandstone. Natural	
		Loose dark black grey silty loam. Frequent inclusions of Mo	
300	Layer	modern rubble	
204		Loose mixed dark brown black, mid red brown silty clay.	Modern
301	Layer	Frequent inclusions of modern rubble	
302	Layer	VOID	-
303	Layer	Concrete slab	Modern
		Loose dark black silty clay. Occasional inclusions of slag	Modern
304	Layer	fragments	
305	Layer	Firm mid yellow red clay. No inclusions	Modern
		Firm dark grey brown silty clay. Rare inclusions of small	Unknown
306	Layer	angular stones	
		Firm mid brown red silty clay. Occasional inclusions of	Natural
307	Layer	sandstone. Natural	
308	Cut	Cut of linear (cable)	Modern
309	Fill	Fill of linear for cable	Modern
		Firm grey brown silty loam. Frequent inclusions of small	Modern
400	Layer	subangular stones	
		Firm grey brown silty sand. Occasional inclusions of small Modern	
401	Layer	subangular stones	
402	Layer	Loose black slag	Modern
403	Layer	Firm orange brown silty clay. Possible Natural	Natural
		Soft grey brown silty loam. Frequent inclusions of small Modern	
500 Layer subangular stones			
501	Layer	Firm orange brown silty clay.	Modern

		Firm dark brown black silty sand. Frequent inclusions of	PM/ Modern
502	Layer	fragmented slag	
503	Layer	Firm orange brown sandy clay. Possible Natural	Natural
		Firm light grey brown silty loam. Frequent inclusions of	Modern
600	Layer	small angular stones	
		Firm light grey silty sand. Frequent inclusions of small	Modern
601	Layer	subangular stones	
		Firm dark red brown silty sand. Frequent inclusions of small	Modern
602	Layer	subangular stones	
		Firm light grey brown silty sand. Frequent inclusions of small	Natural
603	Layer	subangular stones	
		Friable dark grey brown silty loam. Occasional inclusions of Modern	
800	Layer	subangular stones	
		Firm orange brown silty clay. Occasional inclusions of	Unknown
801	Layer	subangular stones	
802	Layer	Friable light grey yellow sand. No inclusions. Natural	Natural
803	Cut	Cut of modern disturbance	Modern
804	Fill	Fill of modern disturbance	Modern

Appendix IV Finds Inventory

Context Number	Object Type	Quantity	Weight (g)	Description
501	Ceramic	8	182	Ceramic insulators
603	Pottery	1	12	White glazed ceramic
603	CBM	1	663	Curved CBM with a hole
800	Plastic	1	5	Number 6 animal tag
800	Pottery	1	34	White glazed ceramic
800	Glass	1	20	Clear bottle glass
800	Metal	1	307	Curved Fe object possibly a pipe collar

Appendix V Written Scheme of Investigation

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WRITTEN SCHEME OF INVESTIGATION

FOR AN ARCHAEOLOGICAL FIELD EVALUATION

AT ATLANTIC TRADING ESTATE RECYCLING FACILITY,

BARRY, VALE OF GLAMORAGAN

Prepared for: Vale of Glamorgan Council

Project Number: 2781

January 2020



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Figure 1. Location Plan

Figure 2. Site location with trench location

Summary

This Written Scheme of Investigation details a programme of archaeological evaluation to be undertaken by Archaeology Wales at the request of the Vale of Glamorgan Council.

The archaeological evaluation will consist of eight trenches to be excavated in advance of the creation of a new resource recovery facility on land at Atlantic Trading Estate, Plot C, Atlantic Crescent, Barry, CF63 3RF, NGR ST 13381 67276 (Figure 1). This work is being undertaken in the pre-planning stage to determine the nature and extent of any archaeological remains.

The proposed development consists of buildings, storage bays, works areas and an access road with weighbridge and drive through vehicle wash. It would include foundation excavation, landscaping, services and all other associated infrastructure.

All work will be undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014).

1. Introduction and planning background

This Written Scheme of Investigation (WSI) details the methodology for a programme of archaeological trenching in advance the creation of a new resource recovery facility on land at Atlantic Trading Estate, Plot C, Atlantic Crescent, Barry, CF63 3RF, NGR ST 13381 67276. This work is being undertaken in the pre-planning stage. This WSI has been prepared by Susan Stratton, Archaeology Wales Ltd (henceforth - AW).

The proposed development consists of buildings, storage bays, works areas and an access road with weighbridge and drive through vehicle wash. It would include foundation excavation, landscaping, services and all other associated infrastructure.

The methodology set out in this WSI has been agreed with Glamorgan-Gwent Archaeological Trust- Archaeological Planning Management (GGAT-APM), in its capacity as archaeological advisors to Vale of Glamorgan Council. This programme of works will help informing the requirement and scope of further mitigation measures should they be required.

All work will be undertaken to the standards and guidance set by the Chartered Institute for Archaeologists (2014). AW is a Registered Organisation with the CIFA.

2. Site Description

2.1. Geology

The geology beneath the proposed development area consists of the Triassic Mercia Mudstone Group. This group typically comprises red or green-grey mudstones and siltstones. However, in the area underlying the site it is more variable and comprises conglomerate and/or breccia which are derived from underlying rocks. These are a mixture of siltstones, sandstones and micritic limestone. No superficial deposits are recorded for the area (BGS, 2020).

2.2. Site description

The development area is located on the Atlantic Trading Estate, Barry, 1.5km to the southwest of Barry town centre and within 200m of the coastline. It is centred on NGR ST 13381 67276.

The development area is an irregularly shaped piece of land currently covered by long grass and low scrub. It is bounded to the east and west by already established industrial estate plots and to the north-west and south by roads of the trading estate.

3. Archaeological background and previous investigation

3.1. Archaeological background

3.1.1. Prehistoric: Palaeolithic (c.450,000 – 10,000 BC), Mesolithic (c.10,000 – 4000 BC), Neolithic (4000 BC – 2500 BC), Bronze Age (2500 BC – 700 BC)

There is evidence of human activity in the vicinity of the development area from the Mesolithic period. Four Mesolithic findspots are located within 3km of the development area, including three flint scatters (PRN 00775s, 00776s and 00777s) and perforated bone needles (PRN 00548s). Evidence of Neolithic activity in the wider area is also demonstrated by flint scatters, with numerous findspots being recorded around 3km from the development area, principally to the north and north-west.

Bronze Age discoveries were made during the initial construction of the Atlantic Trading Estate from 1987-1990. These included the remains of a Bronze Age settlement, comprising a roundhouse and associated stake-built structures and pits (PRN 01997s) located roughly 200m to the west of the development area. A Bronze Age round barrow (GM310) is located 300m to the north-west of the site.

3.1.2. Iron Age (700 BC – AD 43) & Roman (AD 43 – c. AD 410)

There is little evidence for Iron Age occupation in the area. A four-post structure found on the Bronze Age settlement site (PRN 01997s) was thought to date to the Iron Age.

Immediately to the north of the development area the discovery of what appears to have been an early Christian cemetery was made during the construction of an army camp between 1931 and 1938. Several discoveries of human remains were made, including decorated lead lined coffins (PRN 02276s), a cist lined grave (PRN 02390s) and cremations in glass vessels. Gold, silver and copper coins were also found, some of which dated to the 3rd century AD. When considered together these remains potentially represent part of a larger cemetery.

A further lead lined coffin was discovered in 1942-3 during sand extraction, 300m to the north-west of the development area (PRN 02384s). It is thought that the finds were reburied in situ. The discovery of a Roman coin hoard of 300 coins has also been made in Sully (PRN 02181s), although the exact location is unknown.

3.1.3. Early Medieval (c. AD 410 – AD 1086) & Medieval (1086 – 1536)

Evidence for Early Medieval and Medieval activity in the near vicinity of the development area is low, consisting of scattered Medieval pottery finds (PRN 00971s) roughly 300m to the north.

3.1.4. Post-Medieval (1536 – 1899) & Modern (1900 – present day)

A post-medieval farm and mill were situated within 1km to the north-west of the development area (Williams 1993). The complex was built by Evan Thomas of Llynmadoc around 1813. The windmill mound survives, and is Grade II listed (LB 16840).

Significant modern assets within the vicinity of the development area are related to Second World War activity. Hayes Farm military camp (PRN 04413s) (Williams 1993), was located roughly 600m to the north-west of the development area. It was constructed between 1930-1940 and became an American Army camp in 1942. A storehouse (PRN 02707s), part of the American WWII military Supply and Reserve Depot, was constructed in 1938.

3.1.5. Previous investigations

In 2006 Wessex Archaeology carried out an archaeological evaluation that partially extended over the current site area (Wessex Archaeology 2006). Five trenches were excavated, two within the current site boundary (Figure 2), and three to the east, in what is now Barry Recycling Centre. No archaeological features were encountered, with all five trenches encountering made ground deposits originating from the construction of the Supply and Reserve Depot and then its demolition in the late 20th century.

Various archaeological watching briefs have also been carried out in the vicinity of the development area and have encountered few archaeological remains. An undated possible stone causeway (PRN E002444) was found immediately to the north of the development area (Turner 1999). The results of other watching briefs carried on the Atlantic Trading Estate (e.g. Dunning 2013, Harris 2009, Locock 1997, Stafford 2016 and Thomas 2017) have encountered made ground or no archaeology, despite the high archaeological potential indicated by the presence of the known assets detailed above.

4. Objectives

This WSI sets out a program of works to ensure that the intrusive trial trench evaluation will meet the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Field Evaluation (2014).

The objective of the intrusive evaluation will be to locate and describe, by means of strategic trial trenching, archaeological features that may be present within the development area. The work will elucidate the presence or absence of archaeological material, its character, distribution, extent, condition and relative significance. The work will include an assessment of regional context within which the archaeological evidence rests and will aim to highlight any relevant research issues within national and regional research frameworks.

The evaluation will result in a report that will provide information of sufficient detail and may result with the definition of further mitigation measures which can safeguard the archaeological resource. Preservation *in situ* will be advocated where at all possible, but where engineering or other factors result in loss of archaeological deposits, preservation by record will be recommended.

5. Timetable of works

5.1. Fieldwork

The programme of trial trench evaluation will be undertaken during week commencing 27th January 2020.

5.2. Report delivery

The report will be submitted to the client and to GGAT-APM for approval within three months of the completion of the fieldwork. A copy of the report will also be sent to the regional Historic Environment Record (GGAT-HER).

6. Fieldwork

6.1. Detail

The work will be undertaken to meet the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Field Evaluation (2014).

The archaeological project manager in charge of the work will satisfy herself that all constraints to ground works have been identified, including the siting of live services and Tree Preservation Orders. A service search has not been undertaken, provision will be made for CAT scanning prior to excavation.

The evaluation will consist of eight 20m long by 1.8m wide machine excavated trenches (Figure 2). The trenches have been located to compliment the previously excavated trenches from the 2006 evaluation, which were located to the west (Trench 1) and southeast (Trench 2) of the current site.

The trenches will be excavated to the top of the archaeological horizon by a machine fitted with a toothless grading bucket under close archaeological supervision. All areas will be subsequently hand cleaned using pointing trowels to prove the presence, or absence, of archaeological features and to determine their significance. All archaeological features will be excavated and recorded, to elucidate the character, distribution, extent and importance of the archaeological remains. As a minimum, small discrete features will be fully excavated, larger discrete features will be half-sectioned (50% excavated) and long linear features will be sample excavated along their length - with investigative excavations distributed along the exposed length of any such feature and to investigate terminals, junctions and relationships with other features. Should this percentage excavation not yield sufficient information to allow the form and function of archaeological features/deposits to be determined full excavation of such features/deposits will be required.

Sufficient excavation will be undertaken to ensure that the natural horizons are reached and proven, where this can be practically and safely achieved. The depth of the excavation will conform to current safety requirements. If excavation is required below 1m the options of using shoring will be discussed with the Client and GGAT-APM.

Where potentially significant archaeological features are encountered during the course of the evaluation GGAT-APM and the Client will be informed at the earliest possible

Following the archaeological recording and monitoring, the trench will be backfilled in sequence and tracked in, this is with the intention to leave the site in a reasonable condition.

6.2. Recording

Recording will be carried out using AW recording systems (pro-forma context sheets etc) using a continuous number sequence for all contexts.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries.

Photographs will be taken in digital format with an appropriate scale, using a 12MP camera with photographs stored in Tiff format.

6.3. Finds

The professional standards set in the Chartered Institute for Archaeologists' *Standard and guidance for the collection, documentation, conservation and research of archaeological (2014)* will form the basis of finds collection, processing and recording.

All manner of finds regardless of category and date will be retained.

Finds recovered that are regarded as Treasure under *The Treasure Act 1996* will be reported to HM Coroner for the local area.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (normally Phil Parkes at Cardiff University).

6.4. Environmental sampling strategy

Deposits with a significant potential for the preservation of palaeoenvironmental material will be sampled, by means of the most appropriate method (bulk, column etc). Where sampling will provide a significant contribution to the understanding of the site AW will draw up a site-specific sampling strategy alongside a specialist environmental archaeologist. Provision will be made for scientific dating if sufficient material from relevant deposits are located. All environmental sampling and recording and will follow English Heritage's *Guidelines for Environmental Archaeology* (2011).

6.5. Human remains

In the event that human remains are encountered, their nature and extent will be established and the coroner informed. All human remains will be left *in situ* and protected during backfilling. Where preservation *in situ* is not possible the human remains will be fully recorded and removed under conditions that comply with all current legislation and include acquisition of licenses and provision for reburial following all analytical work. Human remains will be excavated in accordance with the Chartered Institute for Archaeologist's *Updated Guidelines to the Standards for Recording Human Remains* (2017).

A meeting with GGAT-APM, the client and AW will be called if the human remains uncovered are of such complexity or significance that the contingency arrangement (6.1 above) would not be of sufficient scope.

6.6. Specialist advisers

In the event of certain finds, features or sites being discovered, AW will seek specialist opinion and advice. A list of specialists is given in the table below although this list is not exhaustive.

Artefact type	Specialist
Flint	Julie Birchenall (freelance)
Animal bone	Richard Madgwick (Cardiff University)
CBM, heat affected clay, Daub etc.	Phil Mills (freelance)
Clay pipe	Charley James-Martin (Archaeology Wales)
Glass	Rowena Hart (Archaeology Wales)
Cremated and non-cremated human bone	Richard Madgwick (Cardiff University)
Metalwork	Kevin Leahy (University of Leicester)
Metal work and metallurgical residues	Dr Tim Young (GeoArch)
Neo/BA pottery	Dr Alex Gibson (Bradford University)
IA/Roman pottery	Jane Timby (Freelance)
Roman Pottery	Rowena Hart (Archaeology Wales)/ Peter Webster (Freelance)
Post Roman pottery	Stephen Clarke (Monmouthshire Archaeology)

Charcoal (wood ID)	Dana Challinor (Freelance)
Waterlogged wood	Nigel Nayling (University of Wales – Lampeter)
Molluscs and pollen	Dr Rhiannon Philp (Archaeology Wales)
Charred and waterlogged plant remains	Wendy Carruthers (Freelance)

6.6.1. Specialist reports

Specialist finds and palaeoenvironmental reports will be written by AW specialists, or subcontracted to external specialists when required.

7. Monitoring

GGAT-APM will be contacted approximately five days prior to the commencement of archaeological site works, and subsequently once the work is underway.

Any changes to the WSI that AW may wish to make after approval will be communicated to GGAT-APM for approval on behalf of the Planning Authority.

Representatives of GGAT-APM will be given access to the site so that they may monitor the progress of the field evaluation. No area will be back-filled until GGAT-APM has had the opportunity to inspect it, unless permission has been given in advance. GGAT-APM will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

8. Post-fieldwork programme

8.1. Archive assessment

8.1.1. Site archive

An ordered and integrated site archive will be prepared in accordance with *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2017* (National Panel for Archaeological Archives in Wales) and the guidelines of the Chartered Institute for Archaeologists upon completion of the project. The project will adhere to the Welsh Archaeological Trust's joint Guidance for the Submission of Data to the Welsh Historic Environment Records (2018).

The site archive (including artefacts and samples) will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with CIfA Guidelines (*Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives'*, 2014). The legal landowners' consent will be gained for deposition of finds.

8.1.2. Analysis

Following a rapid review of the potential of the site archive, a programme of analysis and reporting will be undertaken. This will result in the following inclusions in the final report:

- Bilingual non-technical summary
- Location plan showing the area/s covered by the work, all artefacts, structures and features found
- Plan and section drawings (if features are encountered) with ground level, ordnance datum and vertical and horizontal scales.
- Written description and interpretation of all deposits identified, including their character, function, potential dating and relationship to adjacent features. A catalogue of all artefacts and soil samples will be included as appropriate.
- An indication of the potential of archaeological deposits which have not been disturbed by the development
- A discussion of the local, regional and national context of the remains by means of reviewing published reports, unpublished reports, historical maps, documents from local archives and the regional HER as appropriate.
- A detailed archive list at the rear listing all contexts recorded, all samples finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

The finds assemblage will be washed, bagged and catalogued, with the catalogue forming part of the report on this stage of works. Full specialist analysis and assessment reports will not be conducted at this stage however, with this forming part of subsequent phases of work.

8.2. Reports and archive deposition

8.2.1. Report to client

Copies of all reports associated with the work, together with inclusion of supporting evidence in appendices as appropriate, including photographs and illustrations, will be submitted to the client and GGAT-APM upon completion.

8.2.2. Additional reports

After an appropriate period has elapsed, copies of all reports will be deposited with the relevant county Historical Environment Record (GGAT-HER), the National Monuments Record and, if appropriate, Cadw.

8.2.3. Summary reports for publication

Short archaeological reports will be submitted for publication in relevant journals; as a minimum, a report will be submitted to the annual publication of the regional CBA group or equivalent journal.

8.2.4. Notification of important remains

Where it is considered that remains have been revealed that may satisfy the criteria for statutory protection, AW will submit preliminary notification of the remains to Cadw.

8.2.5. Archive deposition

The final archive (site and research) will, whenever appropriate, be deposited with a suitable receiving institution. If artefacts are recovered, and dependent on the size of the final archive, the preferred receiving institution would be a suitable local institution. If the archive is not acceptable the archive will be deposited with Amgueddfa Cymru – National Museum Wales, Cardiff. If no artefacts are recovered then the archive will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth. Arrangements will be made with the receiving institution before work starts.

Although there may be a period during which client confidentiality will need to be maintained, copies of all reports and the final archive will be deposited no later than six months after completion of the work.

Copies of all reports, the digital archive and an archive index will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth.

Wherever the archive is deposited, this information will be relayed to the HER.

8.2.6. Finds deposition

The finds, including artefacts and ecofacts, excepting those which may be subject to the Treasure Act, will be deposited with the same institution, subject to the agreement of the legal land owners.

9. Staff

The project will be managed by Charley James-Martin (AW Project Manager) and the fieldwork undertaken by suitable qualified and experienced AW archaeologists. Any alteration to staffing before or during the work will be brought to the attention of GGAT-APM and the client.

Additional Considerations

10. Health and Safety

10.1. Risk assessment

Prior to the commencement of work AW will carry out and produce a formal Health and Safety Risk Assessment in accordance with *The Management of Health and Safety Regulations* 1992. A copy of the risk assessment will be kept on site and be available for inspection on request. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

10.2. Other guidelines

AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual *Health and Safety in Field Archaeology (2002)*.

11. Community Engagement and Outreach

Wherever possible, AW will ensure suitable measures are in place to inform the local community and any interested parties of the results of the site investigation work. This may occur during the site investigation work or following completion of the work. The form of any potential outreach activities may include lectures and talks to local groups, interested parties and persons, information boards, flyers and other forms of communication (social media and websites), and press releases to local and national media.

The form of any outreach will respect client confidentiality or contractual agreements. As a rule, outreach will be proportional to the size of the project.

Where outreach activities have a cost implication these will need to be negotiated in advance and in accordance with the nature of the desired response and learning outcomes.

12. Insurance

AW is fully insured for this type of work and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

13. Quality Control

13.1. Professional standards

AW works to the standards and guidance provided by the *Chartered Institute for Archaeologists*. AW fully recognise and endorse the Chartered Institute for Archaeologists' *Code of Conduct, Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* and the *Standard and Guidance for archaeological evaluations* currently in force. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

13.2. Project tracking

The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

14. Arbitration

Disputes or differences arising in relation to this work shall be referred for a decision in accordance with the Rules of the Chartered Institute of Arbitrators' *Arbitration Scheme for the Institute for Archaeologists* applying at the date of the agreement.

15. References

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Websites

British Geological Survey 2020 Geology of Britain Viewer





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