

Proposed Composting Facility Lamby Way Waste Management Site Rumney Cardiff

Archaeological Evaluation

for Cardiff County Council

> CA Project: 3840 CA Report: 12138

> > July 2012

Proposed Composting Facility Lamby Way Waste Management Site Rumney Cardiff

Archaeological Evaluation

CA Project: 3840 CA Report: 12138

prepared by	Kelly Saunders, Project Supervisor
date	6 July 2012
checked by	Laurent Coleman, Project Manager
date	9 July 2012
approved by	Simon Cox, Head of Fieldwork
signed	Sher (a
date	9 July 2012
issue	01

This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.

© Cotswold Archaeology Building 11, Kemble Enterprise Park, Kemble, Cirencester, Gloucestershire, GL7 6BQ t. 01285 771022 f. 01285 771033 e. enquiries@cotswoldarchaeology.co.uk

CONTENTS

SUMM	/ARY	2
1.		3
2.	RESULTS (FIGS 2-3)	5
3.	DISCUSSION	7
4.	CA PROJECT TEAM	8
5.	REFERENCES	8
APPE	NDIX A: CONTEXT DESCRIPTIONS	10
APPE	NDIX B: GEOARCHAEOLOGICAL ASSESSMENT	12
APPE	NDIX C: LEVELS OF PRINCIPAL DEPOSITS AND STRUCTURES	14
APPE	NDIX D: OASIS REPORT FORM	15

LIST OF ILLUSTRATIONS

- Fig. 1 Site location plan (1:25,000)
- Fig. 2 Trench location plan (1:1000)
- Fig. 3 Trenches 1 to 5, comparative levels of deposits from augering (1:50)

SUMMARY

Project Name:	Proposed Composting Facility
Location:	Lamby Way Waste Management Site, Rumney, Cardiff
NGR:	ST 2300 7760
Туре:	Evaluation
Date:	6 - 15 June 2012
Planning Reference:	08/1190/F
Location of Archive:	To be deposited with the National Museum of Wales
Site Code:	LWC 12

An archaeological evaluation was undertaken by Cotswold Archaeology in June 2012 at Lamby Way Waste Management Site, Rumney Cardiff. Five trenches were excavated.

Estuarine blue clay was identified at the limit of investigation (by augering). In Trenches 1, 3 and 4 this was overlain by peat strata. In Trench 3 the peat was overlain by estuarine deposits alluvium containing thin lenses of peat and these deposits were also identified in Trenches 2 and 5. The peat strata and lenses of peat were all identified at broadly comparable depths (2.4m to 3.35m AOD) and they were all overlain by further layers of estuarine alluvial clay. No dating material was recovered from the alluvial sequence. The depth at which the peat deposits and lenses were identified may suggest that they are of Bronze Age date.

1. INTRODUCTION

- 1.1 In June 2012 Cotswold Archaeology (CA) carried out an archaeological evaluation for Cardiff County Council at Lamby Way Waste Management Site, Rumney, Cardiff (centred on NGR: ST 2300 7760; Fig. 1).
- 1.2 Planning consent has been granted for the construction of a composting facility on the site (planning consent no. 08/1190/F), however changes to the design will require different foundations to those originally proposed, therefore Cardiff County Council commissioned an archaeological evaluation to determine whether or not the new foundations will have an impact on any archaeological features. In consequence a *Brief* for the works was issued by Glamorgan-Gwent Archaeological Trust (GGAT) Curatorial (GGAT, undated) archaeological advisors to Cardiff County Council. A subsequent detailed *Written Scheme of Investigation* (WSI) was produced by CA (2012) and approved by GGAT Curatorial. The fieldwork also followed the *Standard and guidance for archaeological field evaluation* (IfA 2008), the *Management of Archaeological Projects* (English Heritage 1991) and *the Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (EH 2006). It was monitored by Mr Neil Maylan, Archaeological Planning Manager, GGAT, including a site visit on 12 June 2012.

The site

- 1.3 The proposed development encloses an area of approximately 2ha, and comprises the south-eastern part of the existing waste management site. It is largely under tarmac surfacing, with some large concrete bases. It is bounded to the south and west by the Rumney Sea Wall, which extends partially along the coast at the edge of the Bristol Channel, to the east by an access track and bund, and to the north by the existing landfill site (Fig. 2). The site lies at approximately 6m AOD, and is relatively flat.
- 1.4 The underlying solid geology of the area is mapped as mudstone associated with the Mercia Mudstone Group of the Triassic Period, overlain by tidal flat deposits of clay, silt and sand (BGS 2012). The current evaluation did not penetrate any deeper than the tidal flat deposits.

Archaeological background

1.5 The archaeological interest in the site is detailed within the GGAT Curatorial *Brief.* It is not intended to repeat the details here however, in summary, the *Brief* identifies that the proposed development lies within the former alluvial marshes of the Wentlooge Level, where significant archaeological features of prehistoric and Roman date have previously been discovered. Of particular significance are peat deposits associated with the Bronze Age and Iron Age to Roman periods, such as those investigated at Rumney Great Wharf (Allen 1995), Gwent Nature Reserve (Locock 1996, idem 1997) and Nash Waste Water Treatment Works (Yates 1997). These investigations indicate that it may be anticipated that peat deposits could be encountered at depths of up to 3m within any preserved alluvial sequence within the proposed development area. The presence of peat deposits at around 3m below present ground level (bpgl) was confirmed during the drilling of a number of boreholes in the vicinity of the current site (Exploration Associates 1995).

Archaeological objectives

1.6 The objectives of the evaluation were to establish the character, quality, date and extent of any archaeological remains or deposits surviving within the site. This information will then assist Cardiff County Council in making an informed judgement on the significance of the archaeological resource, and the likely impact upon it of the proposed development.

Methodology

1.7 The fieldwork originally comprised the excavation of five trenches each 15m long and 1.8m wide at the base. It was originally proposed that the trenches would be excavated to the base of the uppermost peat layer, or to a depth of 3m below present ground level (bpgl), in the locations shown on the attached plan (Fig. 2). Initial excavation of Trench 1 revealed that the ingress of ground water below *c*. 1m bpgl was very rapid, and rendered the alluvium unstable. It was therefore decided to machine excavate to the top of the alluvium and thereafter to hand auger along the trenches to determine the presence of any peat deposits. In consultation with Neil Maylan, Archaeological Planning Manager, GGAT, Trench 4 was reduced in size to 1.8m by 1.8m. Trenches were set out on OS National Grid (NGR) co-ordinates using a Leica 1200 series SmartRover and surveyed in accordance with CA Technical Manual 4 *Survey Manual* (2009).

- 1.8 All trenches were excavated by mechanical excavator equipped with a toothless grading bucket and all machine excavation was undertaken under constant archaeological supervision. Where archaeological deposits were encountered they were excavated by hand in accordance with CA Technical Manual 1: *Fieldwork Recording Manual* (2007).
- 1.9 Deposits were assessed for their palaeoenvironmental potential in accordance with CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites (2003) and in consultation with Nick Watson, Geoarchaeological Technician, ARCA, who visited the site on 7 June in order to assess and record buried alluvial deposits across the site, it was decided that no environmental samples would be required. The geoarchaeological work was undertaken in accordance with procedures and techniques specified in Guidelines for carrying out assessments in geo-archaeology (English Heritage 2002). The ARCA assessment is presented in Appendix B.
- 1.10 The archive and artefacts from the evaluation are currently held by CA at their offices in Kemble. Subject to the agreement of the legal landowner the site archive will be deposited with the National Museum of Wales. A summary of information from this project, set out within Appendix D, will be entered onto the OASIS online database of archaeological projects in Britain.

2. RESULTS (FIGS 2-3)

- 2.1 This section provides an overview of the evaluation results; detailed summaries of the recorded contexts and geoarchaeological report are to be found in Appendices A and B respectively. Details of the relative heights of the principal deposits expressed as metres Above Ordnance Datum (m AOD) appear in Appendix C.
- 2.2 A relatively consistent sequence of intertidal deposition including various peat beds outcropping between 2.4m and 3.35m AOD), overlain by modern make-up deposits and surfaces was identified in Trenches 1 to 5. However there are clearly variations in the depth and character of the peat deposits and a complex pattern of localised deposition, incorporating lateral variations, may have occurred within the site.

2.3 The results are generally comparable with those obtained during the preceding borehole survey (Exploration Associates 1995).

Alluvial deposits/tidal inundation

2.4 A mid grey blue stiff alluvial clay, 109 and 307, was noted at the maximum depth of investigation in Trenches 1 and 3. The upper surface of these deposits was identified at 2.85m AOD (Trench 3) and 3.10m AOD (Trench 1). The geoarchaeological assessment identified frequent sand to granular-sized black plant fragments within deposit 109.

Peat deposits/?former land surface

- 2.5 Peat deposits, 108, 305 and 404 comprising dark brown friable organic material were identified in Trenches 1, 3 and 4. The top of these deposits was located at between 2.7m AOD (Trench 4) and 3.3m AOD (Trench 1), and they were between 0.15m to 0.2m in thickness. The geoarchaeological assessment noted that deposit 108 was comprised a moderately well humified peat with frequent sand to granular-sized plant fragments.
- 2.6 Within Trenches 2, 3 and 5 a greyish blue alluvium containing thin lenses of peat, 205, 304 and 404 was identified. This was identified at the limit of investigation in Trenches 205 and 505 but in Trench 3 it sealed peat deposit 305. The geoarchaeological assessment noted that deposit 504 comprised occasional to frequent pebble-sized patches of poorly humified peat with granular-sized fragments of well-preserved plant remains. The top of these alluvial deposits varied between 2.85m AOD in Trench 2 to 3.35m AOD in Trench 5.

Alluvial deposits/tidal inundation

2.7 Sealing all the above deposits in all of the trenches was a stiff blue alluvial clay, 107, 204, 306, 403 and 504, this was of a very similar character to alluvial clays 109 and 307. These deposits were in turn overlain by softer bluish grey alluvial clays 106, 203, 303, 402 and 503. The geoarchaeological assessment noted that 107 and 106 had a prismatic colloidal structure and contained occasional fine roots, and manganese and iron oxide concretions. The colour become gradually less homogenous with depth and a blue grey clay was mixed with oxidised brown clay. Towards the base of the deposits the grey reduction colour predominated.

2.8 The truncated upper surface of the alluvial clay was then directly overlain by modern make-up and levelling deposits, 100-105, 200-202, 300-302, 400, 401 and 500-502. These deposits comprised brick and stone rubble covered, in the areas of Trenches 3-5, with tarmac.

The Geoarchaeological evidence

2.9 The geoarchaeological assessment primarily comprised augering within Trenches 1 and 5 and the description of the identified deposits. The assessment concluded that; should the peat be impacted by the proposed development (should development proceed) then it is recommended that a borehole is mechanically drilled with an Atlas Cobra petrol-powered hammer and continuous core samples are taken for laboratory bioarchaeological assessment and ¹⁴C dating. These works could be untaken immediately prior to the start of construction activities.

3. DISCUSSION

- 3.1 The evaluation identified peats within Trenches 1, 3 and 5, the upper surfaces of which lay at between 2.7m to 3.3m AOD, and which were between 0.15 and 0.2m in thickness. It is probable that these deposits represent a period of stabilisation. The absence of peat horizons in Trenches 2 and 4, as well as the presence of alluvial deposits, 205, 304 and 505 containing lenses of peat, at roughly the same level as, or immediately above the peat layer, suggests that these deposits may have been subject to fluvial erosion/reworking. It is also possible that palaeochannel(s) are represented.
- 3.2 The date of the peats identified during the evaluation has not been established but the depth at which it was identified is broadly comparable to that of a peat deposit identified at Atlantic Ecopark, located to 1.2km to the east of the site (CA 2009). It is therefore also possible that the deposits are broadly contemporary and that both represent Middle Wentlooge Formations (characterised by episodes of peat development associated with terrestrial vegetation forming on former mudflats and salt marshes) dating to the Late Mesolithic and Bronze Age periods. The overlying clays may be associated with Upper Wentlooge Formations associated with the deposition of silty-clays during marine transgressions in the Iron Age with a return to mudflats and salt marshes (RPS P&D 2007).

3.3 A Roman land surface (represented by peat) was identified at the former Acer factory on Wentlooge Avenue and it is thought that this surface may exist across the Wentlooge Level at a depth of 4.5m to 5m AOD. No such deposits were identified at Atlantic Ecopark (although they may have been disturbed by later activity at this site) and no such deposits were identified during the current evaluation, although in this case they should not have been impacted upon by recent development.

4. CA PROJECT TEAM

Fieldwork was undertaken by Kelly Saunders, assisted by Matthew Brooks, Roy Poulter and Alex Thompson. The report was written by Kelly Saunders, assisted by Roy Poulter. The illustrations were prepared by Pete Moore. The archive has been compiled by Kelly Saunders, and prepared for deposition by James Johnson. The project was managed for CA by Laurent Coleman.

5. **REFERENCES**

- Allen, J. R. L. 1995 'Three Later Bronze Age Occupations at Rumney Great Wharf on the Wentlooge Level', *Gwent Archaeology in the Severn Estuary* VI, 9 -12
- BGS (British Geological Survey) 2012 <u>http://mapapps.bgs.ac.uk/geologyofbritain/home.html</u> accessed 25 May 2012
- CA (Cotswold Archaeology) 2012 Proposed Composting Facility, Lamby Way Waste Management Site, Rumney, Cardiff: Written Scheme of Investigation for an Archaeological Evaluation.
- GGAT (Glamorgan Gwent Archaeological Trust) Curatorial, undated, Proposed Composting Facility, Lamby Way Waste Management Site, Lamby Way, Rumney: Brief for Archaeological Evaluation
- Locock, M. 1996 'Hill Farm, Goldcliffe: A Field Evaluation of the Proposed Gwent Levels Nature Reserve, 1996', *Archaeology in the Severn Estuary* VII, 59 – 66.

9

- Locock, M. 1997 'Gwent Levels Wetlands Reserve, Hill Farm, Goldcliff: Excavations 1997', Archaeology in the Severn Estuary VIII, 61 -71.
- RPS P&D 2007 Atlantic EcoPark: Historic Environment Desk-Based Assessment Technical Report
- Yates, A. M. 1997 'Nash WWTW: Field Evaluation, Nash, Monmouthshire', GGAT Contracts Copy of Report in and Monuments Record: Meddens, F. & Beasley, M. 2001 'Roman Seasonal Wetland Pasture Exploitation Near Nash on the Gwent Levels', Wales Britannia XXXII, 143 184.

APPENDIX A: CONTEXT DESCRIPTIONS

Trench 1

1	1 -		1		i	1 -
No.	Туре	Description	Length	Width	Depth	Spot-
			(m)	(m)	(m)	ateh
			(111)	(11)	(11)	uale
100	Layer	Tarmac, only in one corner of trench.			0.06	
101	Layer	Gravel overlying geotech mesh.			0.35	
102	Layer	Geotech mesh.			0.05	
103	Layer	Whitish grey medium gravel.			0.3	
104	Layer	Medium/Dark brown stone layer, contains industrial			0.3	
		residue.				
105	Layer	Geotech mesh.			0.05	
106	Layer	Alluvium; mid bluish brown clay.			1.5	
107	Layer	Alluvium; soft mid greyish blue clay.			0.4	
108	Layer	Dark brown peat. Spongy consistency. Includes light			0.15	
	-	brown organic matter.				
109	Layer	Mid blue silty clay. Waterlogged.			>0.55	
1	-		1	1		1

Trench 2

No.	Туре	Description	Length (m)	Width (m)	Depth (m)	Spot- date
200	Layer	Brick & demolition debris. Occasional patches of thin soil.			0.3	
201	Layer	Make up layer. Dark grey. Slag/concrete mixed with fine sand. Compact.			Max 0.65	
202	Layer	Pink/orange sandy gravel. More prevalent in eastern end of trench.			Max 0.45	
203	Layer	Mid brown and grey mottle alluvium.			2.1	
204	Layer	Mid grey and blue mottle clay.			0.75	
205	Layer	Mid blue clay with small lenses of peat.			>0.1	

Trench 3

No.	Туре	Description	Length	Width	Depth	Spot-
300	Laver	Tarmac.		(11)	0.13	uale
301	Layer	Gravel layer over geotech mesh.			0.3	
302	Layer	Gravel layer consisting of medium angular pieces.			0.2	
303	Layer	Alluvium. Dark greyish brown clay.			1.07	
304	Layer	Mid blue alluvial clay with peat lenses.			0.2	
305	Layer	Peat. Very dark brown. Spongy consistency.			0.1 – 0.2	
306	Layer	Stiff greyish blue clay above (304).			0.5	
307	Layer	Blue clay below peat (305).			>0.5	

Trench 4

No.	Туре	Description	Length (m)	Width (m)	Depth (m)	Spot- date
400	Layer	Tarmac			0.1	
401	Layer	Hardcore/Rubble make-up layer.			0.6	
402	Layer	Alluvium, blue and brown mottle clay.			2.15	
403	Layer	Stiff blue clay.			0.65	
404	Layer	Friable dark brown peat deposit.			>0.1	

Trench 5

No.	Туре	Description	Length (m)	Width (m)	Depth (m)	Spot- date
500	Layer	Tarmac			0.15	
501	Layer	Grey sand and gravel with modern debris.			0.45	
502	Layer	Brick rubble.			0.25	
503	Layer	Mid blue and brown mottle alluvial clay.			2.1	
504	Layer	Mid blue stiff alluvial clay, contains lenses of peat.			>0.6	

APPENDIX B: GEOARCHAEOLOGICAL ASSESSMENT BY NICK WATSON

INTRODUCTION

The site is located at The Cardiff City Lamby Way Waste Management facility (NGR ST 2300 7760) on the Severn Estuary foreshore south east of the city. The land is an area of reclaimed wetlands- the Gwent Levels – and has a surface height of approximately 6m aOD. The British Geological survey maps the geology as Holocene 'Tidal Flat Deposits' (BGS 2012), although these deposits are informally classified as the Wentlooge formation (Allen and Rae 1987). The underlying solid geology is the Mercia Mudstone Group of the Triassic period.

Cotswold Archaeology was commissioned to undertake an archaeological evaluation ahead of construction of a composting facility at the site. Archaeological features of prehistoric and Roman date have been discovered in the Wentlooge Level and the occurrence of peat deposits was expected within the alluvial stratigraphy at a depth of up to 3m below ground surface. The evaluation originally comprised five trenches 15x1.8m to be excavated to a depth of 3m. ARCA was requested to assess the geoarchaeological potential of the site on the basis of stratigraphy exposed in the trenches. Accordingly the author visited the site on the 7 June 2012.

At the time of the visit one trench was open for inspection and a mechanical excavator was in the process of removing the overburden from a second. Due to the low lying position of the site, a high water table and heavy rain Trench 1 was flooded and it was impossible to pump the water out to examine the sections fully. Fortunately the top metre was accessible and it was possible to hand auger to a depth 4.25m below ground surface. In the second trench (Trench 5 c.60m south west) the top of the alluvial clay had been uncovered at 1.10m below ground surface. Since the influx of water was beyond the capacity of the pump the stratigraphy was hand augered to a depth of 3.40m below ground surface at which point the work had to be abandoned.

METHODOLOGY

All observations were made from samples recovered from hand augering except for the top metre in Trench1 where the section preserved the uppermost 0.8m of alluvial/intertidal clay. Holes were bored with an Edelman auger and descriptions were made using the terminology of Tucker (1982), Jones *et al.* (1999) and Munsell (2000).

RESULTS

Trench 1

0.00-0.20m Unit 1 Tarmac and 7.5 YR 4/1 Dark grey silt/clay with cobble -sized modern tile (Made ground). Diffuse boundary to:

0.20-3.25m Unit 2 7.5 YR 4/1 Dark grey, compact and hard silt/clay with a prismatic colloidal structure and occasional fine roots. Frequent fine sand to granular- sized brown/black hard grains (manganese and iron oxide concretions). The colour becomes gradually less homogenous and a reduced Gley 2 5/1 Bluish grey silt/clay is mixed with an oxidised 10 YR 4/3 Brown silt/clay. Towards the base the reduction colour predominates giving a 10 YR 5/1 Grey colour and the silt/clay has a softer texture. (oxidised alluvial clay within a fluctuating water table). Sharp boundary to:

3.25-3.40m Unit 3 5 Y 2.5/1 Black moderately well-humified peat with frequent fine sand to granular-sized plant remains. Sharp boundary to:

3.40-4.25m Unit 4 5 Y 4/2 Dark grey (blue shade) compact and soft silt/clay with frequent sand to granular-sized black plant fragments. (Alluvial/intertdal clay)

Trench 5

The stratigraphy is the same here as in Trench 1 with the exception of a well-defined unit of peat.

0.00-1.00m Unit 1 Made ground

1.00-2.70m Unit 2 Alluvial/intertidal clay

2.70-3.40m Unit 4 At 3.10m to base: occasional to frequent pebble-sized patches of poorly-humified peat with granular-sized fragments of well-preserved plant remains.

DISCUSSION AND CONCLUSIONS

The deposits examined in Trench 1 are the same as those in Trench 5. They represent continuous minerogenic estuarine sedimentation from 4.25m below ground surface with a single bed of peat between 3.25 and 3.40m which marks a halt in the alluvial/intertidal accumulation. Although a continuous unit of peat was absent in Trench 5 this may have been due to the destructive action of the Edelman auger and the difficulty of recovering samples in the flooded conditions. However there was sufficient evidence of plant remains to show that the unit was present, albeit disturbed, at a depth of 3.10m below ground surface. The peat was buried by further alluvial/intertidal sediments (Unit 2) to 0.20m below ground surface in Trench 1 whereas in Trench 5 the alluvial/intertidal unit was buried by a metre of modern overburden. No artefacts were recovered.

Two thin peat units were also recorded at approximately 3.5 and 3.0m aOD on the nearby Atlantic Ecopark site in 2009, i.e. at a slightly lesser depth than the single peat unit recognised at Lamby Way (Payne 2009). Exploration Associates BH 50 on the present site records peat at 2.80m below ground surface, i.e. c 3.20m aOD, c.150m west of Trench 1 and in BH 53 at 2.60m (c.3.40m aOD) c.50m south west. Given similar heights of outcrop these units are most probably the same as Unit 3 in Trench 1, it is possible that all the above peat units can be correlated with the Wentlooge 'main peat' (*sensu* Bell *et al.* 2000), which has been dated to the Early Bronze Age (e.g. at Redwick [Bell *et al.* 2000, 292-299). Indeed a thin peat layer at a similar elevation was recorded in boreholes drilled along the line of sewer trenches between Cardiff and Newport (Yates *et al.* 2001), while somewhat thicker peats were encountered at the International Railfreight Terminal, Wentlooge at 3-4m aOD (Walker *et al.* 2002). Dates on the peats on the latter two sites span the Late Neolithic and Bronze Age, perhaps suggesting that the strata at Lamby Way have a similar Late Prehistoric age.

RECOMMENDATIONS

The peat unit is beyond the depth that was proposed for hand excavation in Trenches 1 and 5. Should the peat be impacted by the proposed development (should development proceed) then it is recommended that a borehole is mechanically drilled with an Atlas Cobra petrol-powered hammer and continuous core samples are taken for laboratory bioarchaeological assessment and ¹⁴C dating.

REFERENCES

Allen, J.R.L. and Rae, J.E. (1987) Late Flandrian shoreline oscillations in the Severn Estuary: a geomorphological and stratigraphical reconnaissance. *Philosophical Transactions of the Royal Society of London* **B315**, 185-230.

Bell, M.G., Caseldine, A. and Neimann, H. (2000) *Prehistoric intertidal archaeology in the Welsh Severn Estuary*. CBA Research Report 120, Council for British Archaeology, York.

British Geological Survey (2012) The BGS Lexicon of named rock units. <u>http://www.bgs.ac.uk/lexicon/</u> (accessed 8 June 2012)

Jones, A.P., Tucker, M.E. and Hart, J.K. (1999) Guidelines and recommendations. In Jones, A.P., Tucker, M.E. and Hart, J.K. (Eds.) *The description and analysis of Quaternary stratigraphic field sections*. Quaternary Research Association technical guide **7**, London, 27-76.

Munsell Color (2000) Munsell soil color charts. Munsell Color, New Windsor (NY).

Payne, R. (2009) Geoarchaeological assessment at Atlantic Ecopark, Rumney. Unpublished ARCA report, University of Winchester.

Tucker, M.E. (1982) Sedimentary rocks in the field. Wiley, Chichester.

Walker, M.J.C., Druce, D., Caseldine, A.E. and Cameron, N.G. (2002) Palaeoecological investigations of buried peats at the proposed Cardiff International Railfreight Terminal, Wentlooge, Cardiff. *Archaeology in the Severn Estuary* **13**, 107-122.

Yates, A., Roberts, R. and Walker, M.J.C. (2001) The archaeology of the Wentlooge Level: investigations along the Wentlooge sewers, 1998-9. *Archaeology in Severn Estuary* **12**, 55-77.

APPENDIX C: LEVELS OF PRINCIPAL DEPOSITS AND STRUCTURES

Levels are expressed as metres below current ground level and as metres Above Ordnance Datum (AOD),

	Trench 1 auger 1	Trench 1 auger 2	Trench 2 auger 1	Trench 2 auger 2	Trench 2 auger 3
Current ground level	0.00m (6.50m)	0.00m (6.25m)	0.00m (6.70m)	0.00m (6.65m)	0.00m (6.70m)
Top of thin peat lenses	-	-	-	-	3.9 (2.85m)
Base of thin peat lenses	-	-	-	-	
Top of peat	3.45m (3.05m)	2.95m (3.30m)	-	-	-
Base of peat	-	3.15m (3.10m)	-	-	-
Limit of investigation	3.65m (2.85m)	3.70m (2.55m)	3.75m (2.95m)	3.60m (3.05m)	3.68m (2.47m)

	Trench 3	Trench 3	Trench 3	Trench 4
	auger 1	auger 2	auger 3	auger 1
Current ground level	0.00m	0.00m	0.00m	0.00m
-	(6.25m)	(6.15m)	(6.20m)	(6.20m)
Top of thin peat lenses	2.90m	2.80m	-	-
	(3.35m)	(3.35m)		
Base of thin peat lenses	3.10m	3.00m	-	-
	(3.15m)	(3.15m)		
Top of peat	3.10m	3.00m	3.15m	3.50m
	(3.15m)	(3.15m)	(3.05m)	(2.70m)
Base of peat	3.20m	3.15m	3.35m	-
	(3.05m)	(3.00m)	2.85m	
Limit of excavation	3.41m	3.65m	3.70m	3.66m
	(2.85m)	(2.50m)	(2.50m)	(2.49m)

	Trench 5	Trench 5	Trench 5
	auger 1	auger 2	auger 3
Current ground level	0.00m	0.00m	0.00m
	(6.50m)	(6.50m)	(6.60m)
Top of thin peat lenses	3.15m	3.20m	3.60m
	(3.35m)	(3.30m)	(3.00m)
Base of thin peat lenses	-	-	-
Top of peat	-	-	-
Base of peat	-	-	-
Limit of excavation	3.30m	3.90	4.2m
	(3.20m)	(2.60m)	(2.40m)

Upper figures are depth below modern ground level; lower figures in parentheses are metres AOD.

APPENDIX D: OASIS REPORT FORM

PROJECT DETAILS

Broject Name	Broppood Composting Equility Lomb	Way Wasta Managament			
	Site, Rumney Cardiff	vvay waste management			
Short description	An archaeological evaluation was Archaeology in June 2012 at Lamby Wa Rumney Cardiff. Five trenches were ex	undertaken by Cotswold ay Waste Management Site, cavated.			
	Estuarine blue clay was identified at the limit of investigation (by augering). In Trenches 1, 3 and 4 this was overlain by peat strata. In Trench 3 the peat was overlain by estuarine deposits alluvium containing thin lenses of peat and these deposits were also identified in Trenches 2 and 5. The peat strata and lenses of peat were all identified at broadly comparable depths (2.4m to 3.35m AOD) and they were all overlain by further layers of estuarine alluvial clay. No dating material was recovered from the alluvial sequence. The depth at which the peat deposits and lenses were identified may suggest that they are of Bronze Age date.				
Project dates	6-15 June 2012				
Project type	Evaluation				
Previous work	None				
Future work	Unknown				
PROJECT LOCATION					
Site Location	Lamby Way Waste Management Site, F	Rumney Cardiff			
Study area (M²/ha)	2 ha				
Site co-ordinates (8 Fig Grid Reference)	ST 2300 7760				
PROJECT CREATORS					
Name of organisation	Cotswold Archaeology				
Project Brief originator	GGAT Curatorial				
Project Design (WSI) originator	Cotswold Archaeology				
Project Manager	Laurent Coleman				
Project Supervisor	Kelly Saunders				
MONUMENT TYPE	None				
SIGNIFICANT FINDS	None				
PROJECT ARCHIVES	Intended final location of archive	Content			
Physical	n/a				
Paper	National Museum of Wales	Proforma recording sheets			
Digital	National Museum of Wales Digital photos				
BIBLIOGRAPHY					
CA (Cotswold Archaeology) 2012 Proposed	d Composting Facility, Lamby Way Waste	Management Site, Rumney,			

Cardiff: Archaeological Evaluation. CA typescript report **12138**





PROJECT NO. 3840 DRAWN BY PJM APPROVED BY PJM	PROJECT TILE Proposed col Lamby Way, FIGURE TILE	0 Reproduced from the Ordnance Survey on © Crown copyright Co	$-\phi$	
DATE 20-06-2 REVISION 00 SCALE@A3 1:1000	naeology www naeology www naeology www e enqu Cardiff Cardiff	Ordnance Survey Digital ma benaff of The Controller of H verswold Archaeelegy Ltd 100	site evaluation t auger hole south-west/ transect	
n2 FIGURE NO. 2	ster 01265 77 1022 (synes 01908 218320) ar 01264 326549 cotswoldarchaedogy.co.uk ries@cotswoldarchaedogy.co.uk	50m pplng with the permission of r Malgesty's Startbonery Office 02109.	north-east	►Z





