ENGLISH HERITAGE

Centre for Archaeology
Scientific Dating Service

Details of Radiocarbon Sample

For Dating Lab use
Lab No

Result

$\delta^{13}C$:

$\delta^{15}N$:

Other lab nos

Please complete this form for every radiocarbon sample which you wish to submit for dating. The detailed information requested is essential for the assessment and full scientific publication of your samples and may be published verbatim. Incorrect or incomplete submissions will cause delay.

Name of site	Beccles
Name or code of series	Beccles#2
Your sample reference	Beccles#2 283cm

Type of material Please mark with X

Animal bone		Charcoal		Leather		Shell		Water	
Antler		Fabric		Peat		Slag		Wood	
Bone		Grain		Plant macrofossil		Soil			
Carbonised residue		Human bone		Sediment		Thatch			

Specific identification eg left tibia, *Quercus* sp., sapwood,		**Weight of sample** eg less than 5g	
Name of person carrying out identification and institution affiliated to		**Date identified**	
Collector's name	Dr Tom Hill	**Date collected**	July 2006
Submitter's name	Dr Ben Gearey	**Date submitted**	October 2006

Estimated archaeological period Please mark with X

Palaeolithic	Until 10,000 BP		Post medieval	1540 – 1955 cal AD	
Mesolithic	10,000 BP – 4,000 cal BC		Holocene		
Neolithic	4,000 – 2,500 cal BC		GS–1 (Younger Dryas)		
Bronze Age	2,500 – 600 cal BC		GI–1a (Allerød)		
Iron Age	cal BC 600 – 43 cal AD	x	GI–1b+c (Older Dryas)		
Roman	43 – 410 cal AD		GI–1d+e (Bølling)		
Early medieval	410 – 1066 cal AD		GS–2 (Middle Weichselian)		
Medieval	1066 – 1540 cal AD				

For AML use

AML approval
AML no

Financial year
Deadline

Notes for dating laboratory

Context

Was the sample Please mark with X	x	Sealed in recognisable layer?
		Sealed in a localised feature? *eg a grave or pit*
		Unstratified
		Other *eg wooden pile foundation*
This is known Please mark with X	x	Confidently
		Probably
		Doubtfully

Stratigraphic details

Please give details of the contextual and stratigraphic location of the sample, attaching plan or section. Please discuss the possibility of intrusion or residuality *eg inhumation G76 overlying posthole P27 and inhumation G124 and cut by inhumation G128. The skeleton was fully articulated, removing any possibility of disturbance or excarnation.*

Analysis of aerial photographs, LiDAR and grey literature, combined with sedimentary coring as part of the Suffolk River Valleys Project, resulted in the identification of minerogenic sediments overlying peat within the valley floodplain of the River Waveney, proximal to the town of Beccles. Analysis of the minerogenic sediments has indicated deposition in an intertidal coastal lowland environment.

0-16	Unsampled in core
16-89	Blue-grey (with organic and fe mottling) clayey silt
89-96	Grey-brown organic rich rooty silt
96-135	Blue grey (with org and fe mott.) clayey silt
135-156	Grey-brown organic-rich silt
156-174	Blue-grey (org mott.) clayey silt
174-223	Grey-brown organic rich silt
223-251	Blue-grey (org. mott.) clayey silt
251-255	Grey-brown organic rich silt
255-258	Blue-grey (org. mott.) clayey-silt
258-276	Grey-brown organic rich silt
276-284	Blue-grey (org. mott.) clayey-silt
284-374	Dark brown herbaceous well humified silty peat, becoming red-brown with depth
374-388	Wood horizon

Sample Beccles#2 283cm was taken from the base of a blue-grey clayey silt, believed to have been deposited in an inter-tidal estuarine environment. This sample is located immediately above freshwater peat deposits, indicative of a shift in depositional conditions around this time.

Environmental Details
Please give full details of the burial environment of the sample, including local geology, nearness to water table, calcareous environment, rootlet penetration, disturbance etc. *eg grave 1.7m from surface, waterlogged in winter, cut into natural chalk (pH 7.5). Possible contamination from modern septic tank to NW.*

The underlying geology of this part of the Waveney Valley comprises glaciofluvial drift and chalk till.

The stratigraphy and sedimentology of the deposits suggests the area initially infilled naturally through biogenic in-situ sedimentation. A shift from freshwater to estuarine conditions then occurred, resulting in the deposition of minerogenic sediments within a lowland coastal setting. The thickness of the estuarine sedimentary unit increases with distance north from the Beccles#2 core site. To the south, the thickness of the unit reduces until the stratigraphic archive is composed primarily of freshwater peat deposits. The natural water table was located c. 0.5m from the surface. Rootlet penetration was not evident within the core upon extraction.

Objective

Please describe explicitly the relevance of this sample to the specific dating objective(s) of the project. This information should hold good regardless of the final result of the analysis. This is **your** chance to justify the expense of dating **your** samples!

eg to establish the period of use of the cemetery to the W of the church and N of the fourteenth-century boundary ditch, the absolute date of this burial in comparison to G124 which it seals and G128 which cuts it, and to provide useful comparative information for the osteology since this skeleton has also provided a stable isotope measurement ($\delta^{15}N$ 6.2□).

- To determine the onset of minerogenic sedimentation onto the underlying freshwater peat deposits across the Holocene coastal lowland.
- To determine the duration of minerogenic sedimentation and variations in the rates of sedimentation in relation to relative sea-level change during the depositional history.

Relationship of sample to objective Please mark with X		
x	Certain	The sample came from the object itself *eg skeleton in grave*
	Very likely	There is a direct functional relationship between the sample and the objective *eg coffin in grave*
	Likely	The nature and position of the sample suggests a functional relationship *eg worked antler in an occupation layer*
	Possible	Relationship less obvious because material small and scattered *eg bone fragments in grave*

Estimated age of sample at death Please mark with X	
x	Less than 20 years *eg twigs, grain, bone*
	Could be several decades but less than 100 years *eg charcoal from short lived woody species (eg Corylus avellana, Prunus* sp.*, Pinus* sp.*, Salix/populus* sp.*)*
	Could be centuries old *eg charcoal from long lived woody species (eg Quercus* sp., *Fraxinus* sp., *Taxus baccata)*
	Unknown *eg 'dark earth', soil*

Sample collection, storage and treatment
How was the sample collected? Please include details of size and type of monolith tins or coring equipment if appropriate *eg concentration of charcoal trowelled into polythene bags (double bagged), charcoal separated by water floatation* Core was sampled using a 3cm gauge corer to a depth of 3.88m
How has it been stored? *Eg double bagged in polythene in cardboard box* The cores were stored in 1m gutter sections upon extraction, wrapped for transport back to the lab were they were sub-sampled and refrigerated.
Have any preservatives, fungacides, glues etc been used? Please give details of chemicals No
Was the sample waterlogged when collected? No
Has it been dried and if so how? No
Can the whole sample be used for dating? Yes
Is more material available? We could collect more material from appropriate samples
Has this or any related sample been sent to another laboratory for dating? Please give laboratory references and radiocarbon ages No

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