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	Hengrave
Name or code of series	Hengrave
Your sample reference	Hengrave 161cm

Type of material Please mark with X

Animal bone		Charcoal		Leather		Shell		Water	
Antler		Fabric		Peat	x	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**	August 2007
Submitter's name	Dr Ben Gearey	**Date submitted**	August 2007

Estimated archaeological period Please mark with X

Palaeolithic	Until 10,000 BP		Post medieval	1540 – 1955 cal AD	x
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		GI–1b+c (Older Dryas)		
Roman	43 – 410 cal AD	x	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 as part of the Suffolk River Valleys Project resulted in the identification of a possible palaeochannel within the floodplain of the River Lark, proximal to Hengrave. The lack of palaeoenvironmental research undertaken within the region resulted in the site being chosen for further analysis. A sedimentary core, representative of the Hengrave floodplain stratigraphic archive, was sampled:

Hengrave

0-28cm	Dark brown well humified peat with occasional silt and sand-rich horizons
28-47cm	Dark grey-brown well humified silty peat
47-80cm	Dark grey-brown herbaceous well humified peat
80-151cm	Dark grey-brown herbaceous well humified peat with occasional silt-rich horizons
151-162cm	Dark grey-brown silt-rich well humified peat
160-195cm	Dark grey-brown herbaceous well humified peat with occasional silt
195-277cm	Dark brown herbaceous humified peat with occasional wood fragments
277-295cm	Grey-brown silt-rich peat with occasional sand horizons within
295-320cm	Grey-brown organic-rich sand
320-350cm	Grey-brown silt-rich peat with occasional sand horizons
350-365cm	Grey-brown organic silty sand

Sample Hengrave 161cm was taken from the base of a dark grey-brown well humified silty peat.

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 River Lark catchment is comprised predominantly of glaciofluvial drift.

The stratigraphy and sedimentology of the deposits suggests the area infilled naturally through biogenic in-situ sedimentation. The variation in minerogenic content within the peat units suggests changing environmental conditions during the development of the stratigraphic archive. The natural water table was located c. 0.8m 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 timescale involved for in-situ organic sedimentation in the valley floodplain of the River Lark.
- To determine the duration of sedimentation and variations in the rates of sedimentation 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*

Vehicle access to the site was difficult, hence hand-dug trenching to 0.65m depth was undertaken and sampled using monolith tins. Coring with a 7cm Russian sampler was undertaken to a depth of 3.65m.

How has it been stored? *Eg double bagged in polythene in cardboard box*

The core was extracted an preserved in 1m guttering sections, wrapped and transported to the laboratory for sub-sampling and refrigeration storage

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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