



# 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.

|   |                          |              |  |  |  |        |                    |              |   |
|---|--------------------------|--------------|--|--|--|--------|--------------------|--------------|---|
| <b>Name of site</b>   |                          | Ixworth      |  |  |  |        |                    |              |   |
| <b>Name or code of series</b>   |                          | Ixworth      |  |  |  |        |                    |              |   |
| <b>Your sample reference</b>  |                          | Ixworth 56cm |  |  |  |        |                    |              |   |
| <b>Type of material</b> 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 |                    |              |   |
| <b>Specific identification</b><br>eg left tibia, <i>Quercus</i> sp., sapwood,   |                          |              |  | <b>Weight of sample</b><br>eg less than 5g |  |        |                    |              |   |
| <b>Name of person carrying out identification and institution affiliated to</b> |                          |              |  | <b>Date identified</b>                     |  |        |                    |              |   |
| <b>Collector's name</b><br>Dr Tom Hill  |                          |              |  | <b>Date collected</b>                      |  |        |                    | July 2006    |   |
| <b>Submitter's name</b><br>Dr Ben Gearey  |                          |              |  | <b>Date submitted</b>                      |  |        |                    | October 2006 |   |
| <b>Estimated archaeological period</b> 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          |              |  | 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   |  |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
|---|--|---|------|--|-------|---------------|-------|---|--------|--|---------|--|---------|---|---------|--|---------|---|---------|--|---------|------------------|
| <b>Was the sample</b><br>Please mark with X   | x  | Sealed in recognisable layer?                           |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
|   |  | Sealed in a localised feature? <i>eg a grave or pit</i> |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
|   |  | Unstratified  |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
|   |  | Other <i>eg wooden pile foundation</i>                  |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| <b>This is known</b><br>Please mark with X  | x  | Confidently   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
|   |  | Probably  |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
|   |  | Doubtfully  |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| <b>Stratigraphic details</b><br>Please give details of the contextual and stratigraphic location of the sample, attaching plan or section. Please discuss the possibility of intrusion or residuality <i>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 exhumation.</i><br><br>Analysis of aerial photographs, LiDAR and grey literature as part of the Suffolk River Valleys Project resulted in the identification of possible organic deposits preserved within palaeochannel features of the River Black Burn, within Mickle Mere, Ixworth. Sedimentary coring within the floodplain identified the presence of peat deposits to a depth of c. 3.50m. A sample core was taken for further analysis that was representative of the floodplain's sedimentary archive.<br><br><table border="0"> <tr> <td>0-50</td> <td>Unsampled (light grey slightly gravely silt)</td> </tr> <tr> <td>50-57</td> <td>Same as above</td> </tr> <tr> <td>57-87</td> <td>Dark brown very well humified peat with occasional herbaceous remains</td> </tr> <tr> <td>87-138</td> <td>Dark brown/grey-brown herbaceous well humified silty peat.</td> </tr> <tr> <td>138-141</td> <td>Light grey-brown organic rich sand horizon</td> </tr> <tr> <td>141-150</td> <td>Dark brown very well humified slightly silty peat</td> </tr> <tr> <td>150-250</td> <td>Dark brown herbaceous very well humified peat, occasional wood fragments</td> </tr> <tr> <td>250-264</td> <td>Grey-brown slightly gravely organic silt.</td> </tr> <tr> <td>264-345</td> <td>Dark brown herbaceous well humified woody peat</td> </tr> <tr> <td>345-350</td> <td>Grey silty sand.</td> </tr> </table><br><br>Sample Ixworth 56cm was taken from the base of a light grey slightly gravely silt unit, which is underlain by freshwater peat. |  |   | 0-50 | Unsampled (light grey slightly gravely silt) | 50-57 | Same as above | 57-87 | Dark brown very well humified peat with occasional herbaceous remains | 87-138 | Dark brown/grey-brown herbaceous well humified silty peat. | 138-141 | Light grey-brown organic rich sand horizon | 141-150 | Dark brown very well humified slightly silty peat | 150-250 | Dark brown herbaceous very well humified peat, occasional wood fragments | 250-264 | Grey-brown slightly gravely organic silt. | 264-345 | Dark brown herbaceous well humified woody peat | 345-350 | Grey silty sand. |
| 0-50  | Unsampled (light grey slightly gravely silt)                             |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 50-57   | Same as above  |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 57-87   | Dark brown very well humified peat with occasional herbaceous remains    |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 87-138  | Dark brown/grey-brown herbaceous well humified silty peat.               |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 138-141   | Light grey-brown organic rich sand horizon                               |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 141-150   | Dark brown very well humified slightly silty peat                        |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 150-250   | Dark brown herbaceous very well humified peat, occasional wood fragments |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 250-264   | Grey-brown slightly gravely organic silt.                                |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 264-345   | Dark brown herbaceous well humified woody peat                           |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |
| 345-350   | Grey silty sand.   |   |      |  |       |               |       |   |        |  |         |  |         |   |         |  |         |   |         |  |         |                  |

### 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 the area surrounding Mickle Mere comprises predominantly of chalk, chalk till, and glaciofluvial drift and till.

The stratigraphy and sedimentology of the deposits suggests the area initially infilled naturally through biogenic in-situ sedimentation. Thin minerogenic horizons are present within the peat deposits, which may have been accumulated during periods of temporary catchment instability and floodplain flooding. The peat is capped by a layer of silt which is likely to have accumulated through floodplain deposition. The natural water table was located c. 0.4m 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 valley floodplain.
- To determine the duration of minerogenic 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 <i>eg skeleton in grave</i>  |
|   | Very likely | There is a direct functional relationship between the sample and the objective <i>eg coffin in grave</i>                |
|   | Likely      | The nature and position of the sample suggests a functional relationship <i>eg worked antler in an occupation layer</i> |
|   | Possible    | Relationship less obvious because material small and scattered <i>eg bone fragments in grave</i>                        |

### Estimated age of sample at death Please mark with X

|   |  |
|---|--|
| x | Less than 20 years <i>eg twigs, grain, bone</i>  |
|   | Could be several decades but less than 100 years <i>eg charcoal from short lived woody species (eg Corylus avellana, Prunus sp., Pinus sp., Salix/populus sp.)</i> |
|   | Could be centuries old <i>eg charcoal from long lived woody species (eg Quercus sp., Fraxinus sp., Taxus baccata)</i>  |
|   | Unknown <i>eg 'dark earth', soil</i>   |

|  |
|--|
| <b>Sample collection, storage and treatment</b>  |
| <p><b>How was the sample collected?</b> Please include details of size and type of monolith tins or coring equipment if appropriate <i>eg concentration of charcoal trowelled into polythene bags (double bagged), charcoal separated by water floatation</i></p> <p>Core was extracted using a 7cm Russian corer.</p> |
| <p><b>How has it been stored?</b> <i>Eg double bagged in polythene in cardboard box</i></p> <p>Core sections were stored in 1m sections In plastic guttering, wrapped and transported to the laboratory for sub-sampling and refrigeration storage.</p>  |
| <p><b>Have any preservatives, fungicides, glues etc been used?</b> Please give details of chemicals</p> <p>No</p>  |
| <p><b>Was the sample waterlogged when collected?</b></p> <p>No</p>   |
| <p><b>Has it been dried and if so how?</b></p> <p>No</p>   |
| <p><b>Can the whole sample be used for dating?</b></p> <p>Yes</p>  |
| <p><b>Is more material available?</b></p> <p>We could collect more material from appropriate samples.</p>  |
| <p><b>Has this or any related sample been sent to another laboratory for dating?</b> Please give laboratory references and radiocarbon ages</p> <p>NO</p>  |

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