



## RADIOCARBON DATING CERTIFICATE

09 November 2015

**Laboratory Code** SUERC-63710 (GU39208)

**Submitter** Rob Nicholson  
SWAAG  
2 Hetton Garth  
Leyburn  
North Yorkshire  
DL8 5HP

**Site Reference** SBDD15

**Context Reference** [2]

**Sample Reference** <2>

**Material** Charcoal

**$\delta^{13}\text{C}$  relative to VPDB** -28.7 ‰

**Radiocarbon Age BP** 3241  $\pm$  31

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email [Gordon.Cook@glasgow.ac.uk](mailto:Gordon.Cook@glasgow.ac.uk) or telephone 01355 270136 direct line.

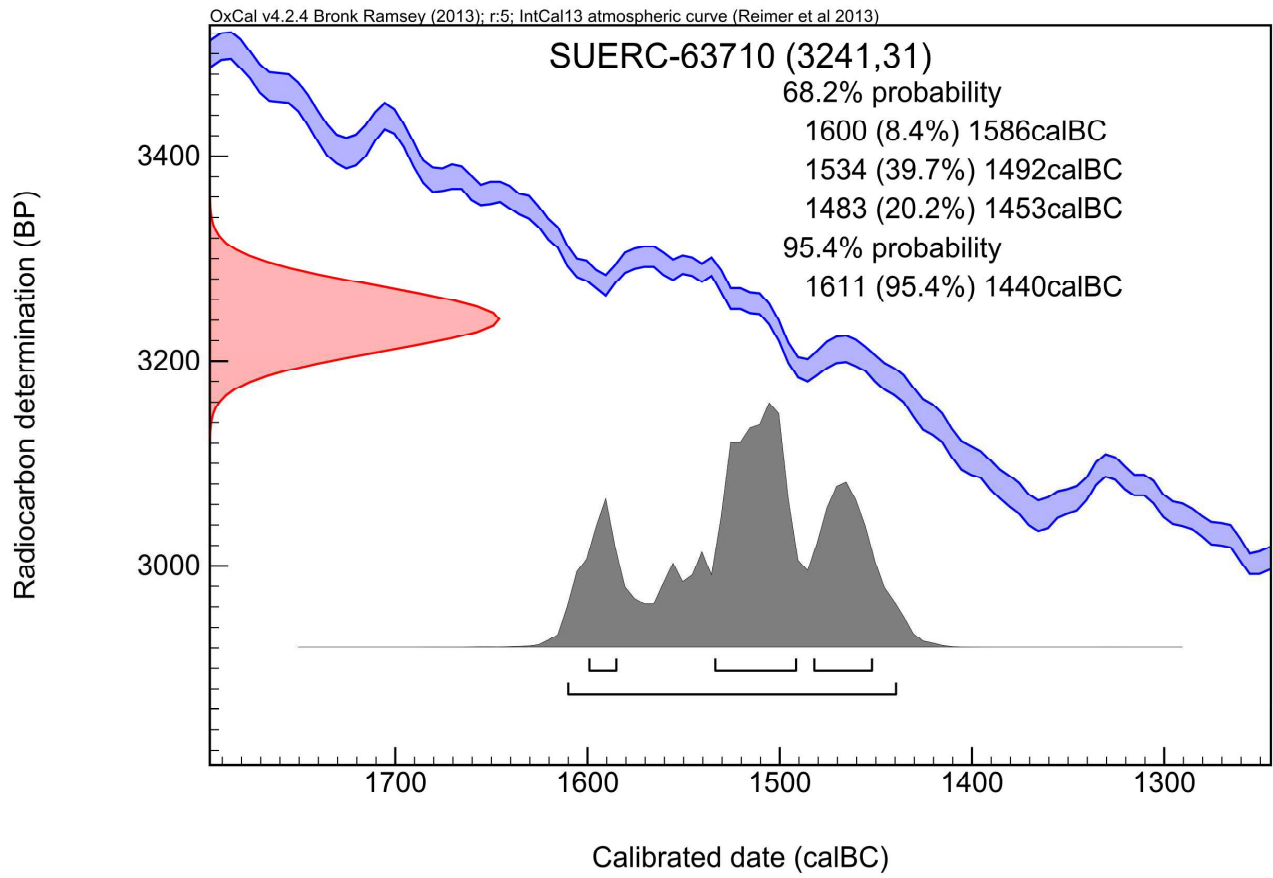
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/11/2015

Checked and signed off by :- *P. Naynab*

Date :- 09/11/2015

# Calibration Plot





## RADIOCARBON DATING CERTIFICATE

09 November 2015

**Laboratory Code** SUERC-63711 (GU39209)

**Submitter** Rob Nicholson  
SWAAG  
2 Hetton Garth  
Leyburn  
North Yorkshire  
DL8 5HP

**Site Reference** SBDD15

**Context Reference** [2]

**Sample Reference** <3>

**Material** Charcoal

**$\delta^{13}\text{C}$  relative to VPDB** -27.1 ‰

**Radiocarbon Age BP** 3770  $\pm$  31

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email [Gordon.Cook@glasgow.ac.uk](mailto:Gordon.Cook@glasgow.ac.uk) or telephone 01355 270136 direct line.

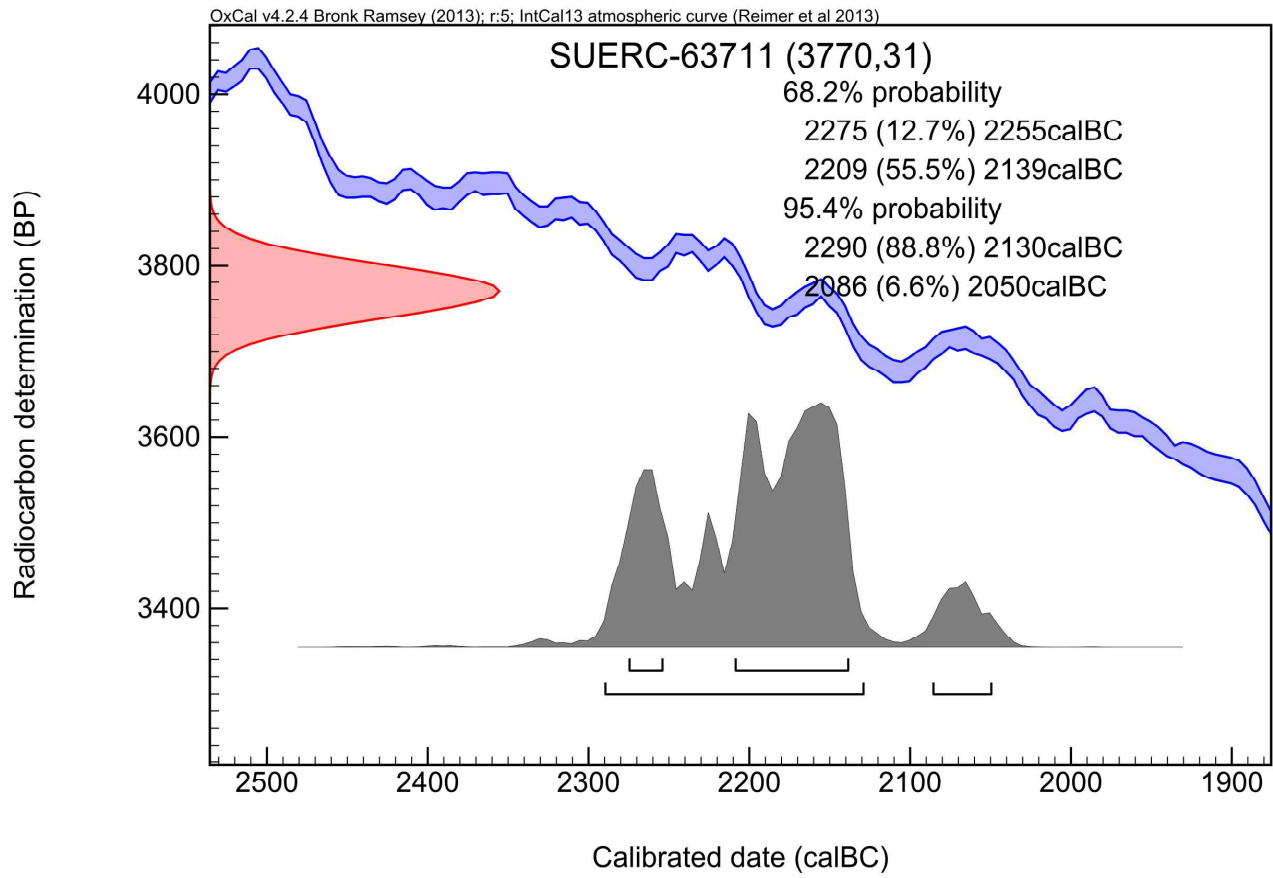
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/11/2015

Checked and signed off by :- *P. Naynart*

Date :- 09/11/2015

# Calibration Plot





## RADIOCARBON DATING CERTIFICATE

09 November 2015

**Laboratory Code** SUERC-63715 (GU39210)

**Submitter** Rob Nicholson  
SWAAG  
2 Hetton Garth  
Leyburn  
North Yorkshire  
DL8 5HP

**Site Reference** SBDD15

**Context Reference** [5]

**Sample Reference** <6>

**Material** Charcoal

**$\delta^{13}\text{C}$  relative to VPDB** -24.9 ‰

**Radiocarbon Age BP** >50000 Background Result

**N.B.** The above sample yielded a result indistinguishable from our background samples and is consequently reported as a greater than age in conventional years BP (before 1950 AD).

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Conventional age calculated by :- *E. Dunbar*

Date :- 09/11/2015

Checked and signed off by :- *P. Maynard*

Date :- 09/11/2015





## RADIOCARBON DATING CERTIFICATE

09 November 2015

**Laboratory Code** SUERC-63716 (GU39211)

**Submitter** Rob Nicholson  
SWAAG  
2 Hetton Garth  
Leyburn  
North Yorkshire  
DL8 5HP

**Site Reference** SBDD15

**Context Reference** [5]

**Sample Reference** <7>

**Material** Charcoal

**$\delta^{13}\text{C}$  relative to VPDB** -25.6 ‰

**Radiocarbon Age BP** 3119  $\pm$  31

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email [Gordon.Cook@glasgow.ac.uk](mailto:Gordon.Cook@glasgow.ac.uk) or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/11/2015

Checked and signed off by :- *P. Naynab*

Date :- 09/11/2015

# Calibration Plot

