

*RADIOCARBON DATING CERTIFICATE*

20 February 2019

**Laboratory Code** SUERC-84641 (GU50187)

**Submitter** Paolo Forlin  
University of Durham  
Department of Archaeology  
South Road  
DH1 3LE  
Durham

**Site Reference** GR-EC18

**Context Reference** 207

**Sample Reference** C14-01

**Material** Charcoal : Pinus sp.

**$\delta^{13}\text{C}$  relative to VPDB** -25.3 ‰

**Radiocarbon Age BP** 782  $\pm$  34

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, 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.

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Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

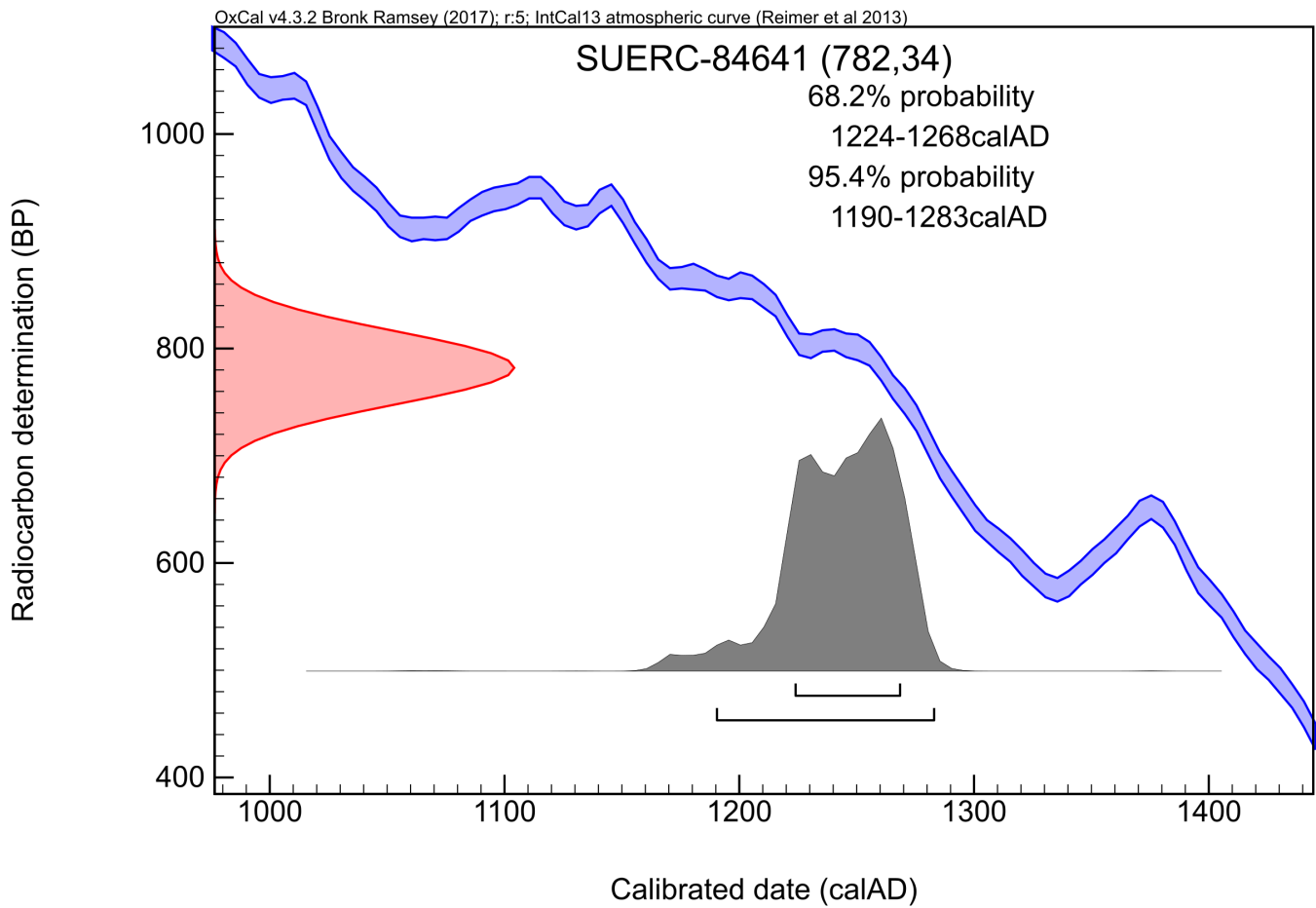
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :



Checked and signed off by :





The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

*RADIOCARBON DATING CERTIFICATE*

20 February 2019

**Laboratory Code** SUERC-84642 (GU50188)

**Submitter** Paolo Forlin  
University of Durham  
Department of Archaeology  
South Road  
DH1 3LE  
Durham

**Site Reference** GR-EC18

**Context Reference** 207

**Sample Reference** C14-02

**Material** Charcoal : Pinus sp.

**$\delta^{13}\text{C}$  relative to VPDB** -25.0 ‰

**Radiocarbon Age BP** 800  $\pm$  34

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, 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.

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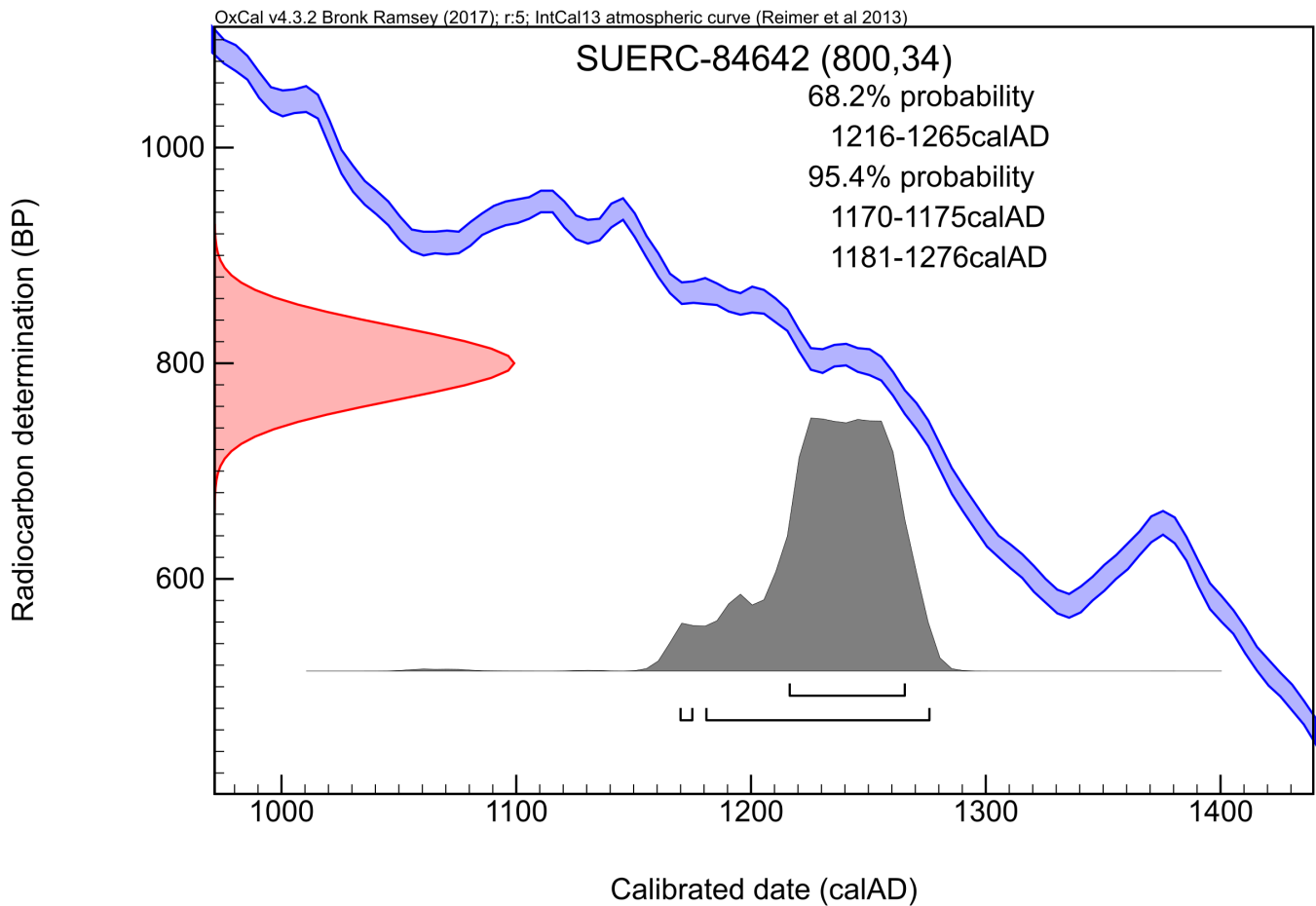
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*RADIOCARBON DATING CERTIFICATE*

20 February 2019

**Laboratory Code** SUERC-84646 (GU50189)  
**Submitter** Paolo Forlin  
University of Durham  
Department of Archaeology  
South Road  
DH1 3LE  
Durham  
**Site Reference** GR-EC18  
**Context Reference** 210  
**Sample Reference** C14-03  
**Material** Charred plant remain : Hordeum sp.  
 **$\delta^{13}\text{C}$  relative to VPDB** -23.9 ‰  
**Radiocarbon Age BP** 816  $\pm$  34

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, 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.

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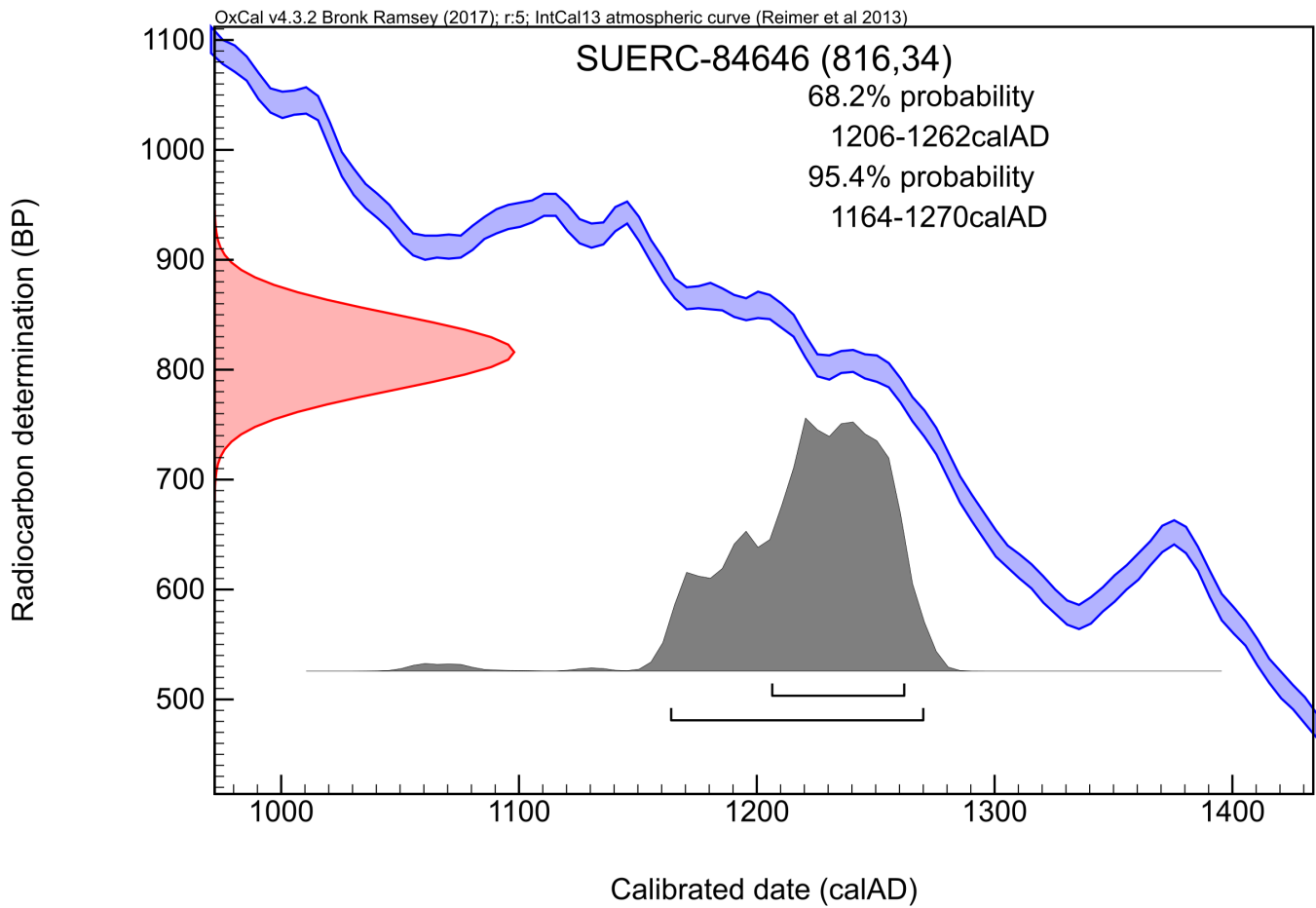
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20 February 2019

**Laboratory Code** SUERC-84647 (GU50190)

**Submitter** Paolo Forlin  
University of Durham  
Department of Archaeology  
South Road  
DH1 3LE  
Durham

**Site Reference** GR-EC18

**Context Reference** 210

**Sample Reference** C14-04

**Material** Charred plant remain : cf. *Hordeum* sp.

**$\delta^{13}\text{C}$  relative to VPDB** -25.3 ‰

**Radiocarbon Age BP** 811  $\pm$  34

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, 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.

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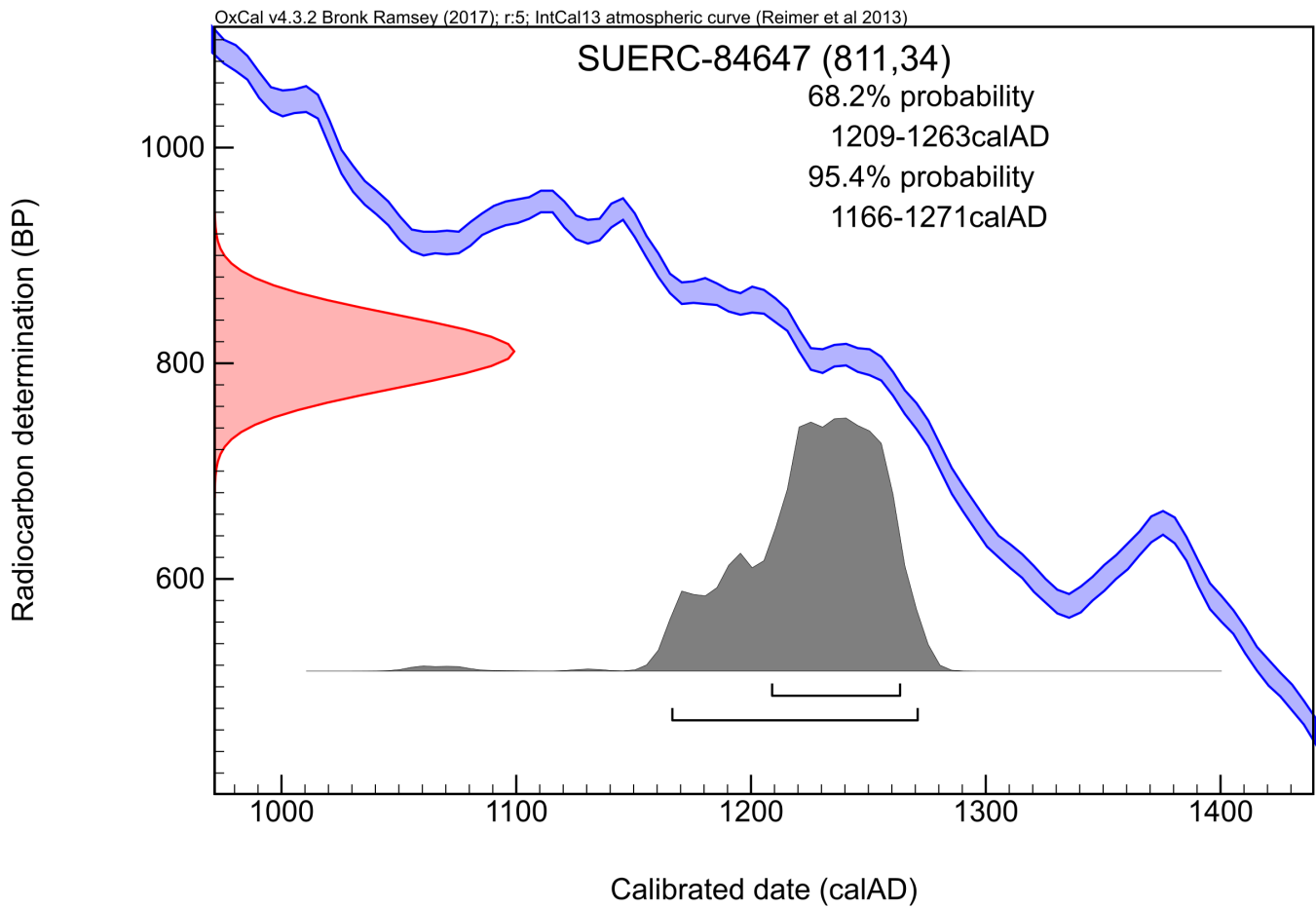
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20 February 2019

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**Submitter** Paolo Forlin  
University of Durham  
Department of Archaeology  
South Road  
DH1 3LE  
Durham

**Site Reference** GR-EC18

**Context Reference** 108

**Sample Reference** C14-05

**Material** Charred plant remain : *Olea europaea* L. (fragment)

**$\delta^{13}\text{C}$  relative to VPDB** -22.6 ‰

**Radiocarbon Age BP** 841  $\pm$  34

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, 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.

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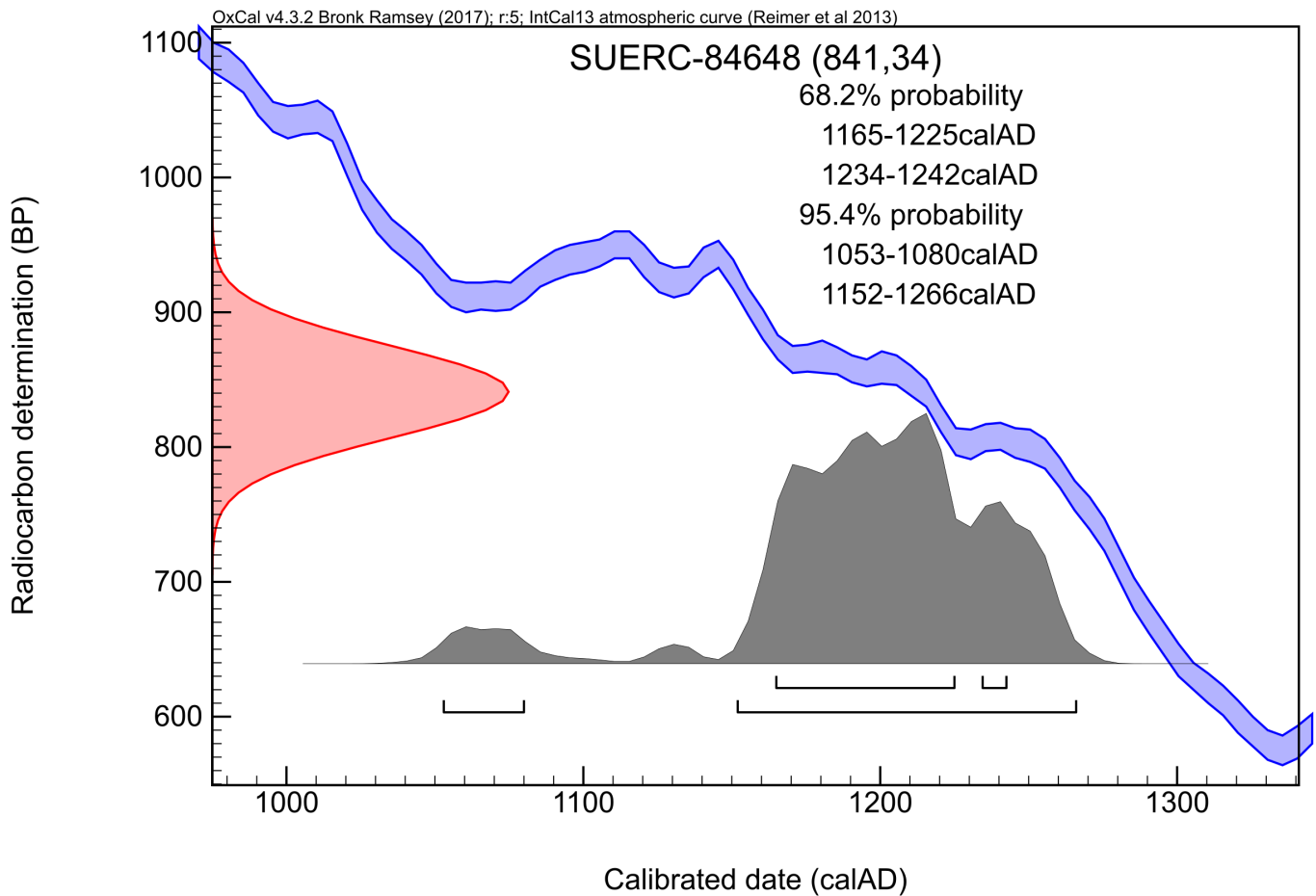
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**Submitter** Paolo Forlin  
University of Durham  
Department of Archaeology  
South Road  
DH1 3LE  
Durham

**Site Reference** GR-EC18

**Context Reference** 108

**Sample Reference** C14-06

**Material** Charred plant remain

**$\delta^{13}\text{C}$  relative to VPDB** -23.9 ‰

**Radiocarbon Age BP** 761  $\pm$  34

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, 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.

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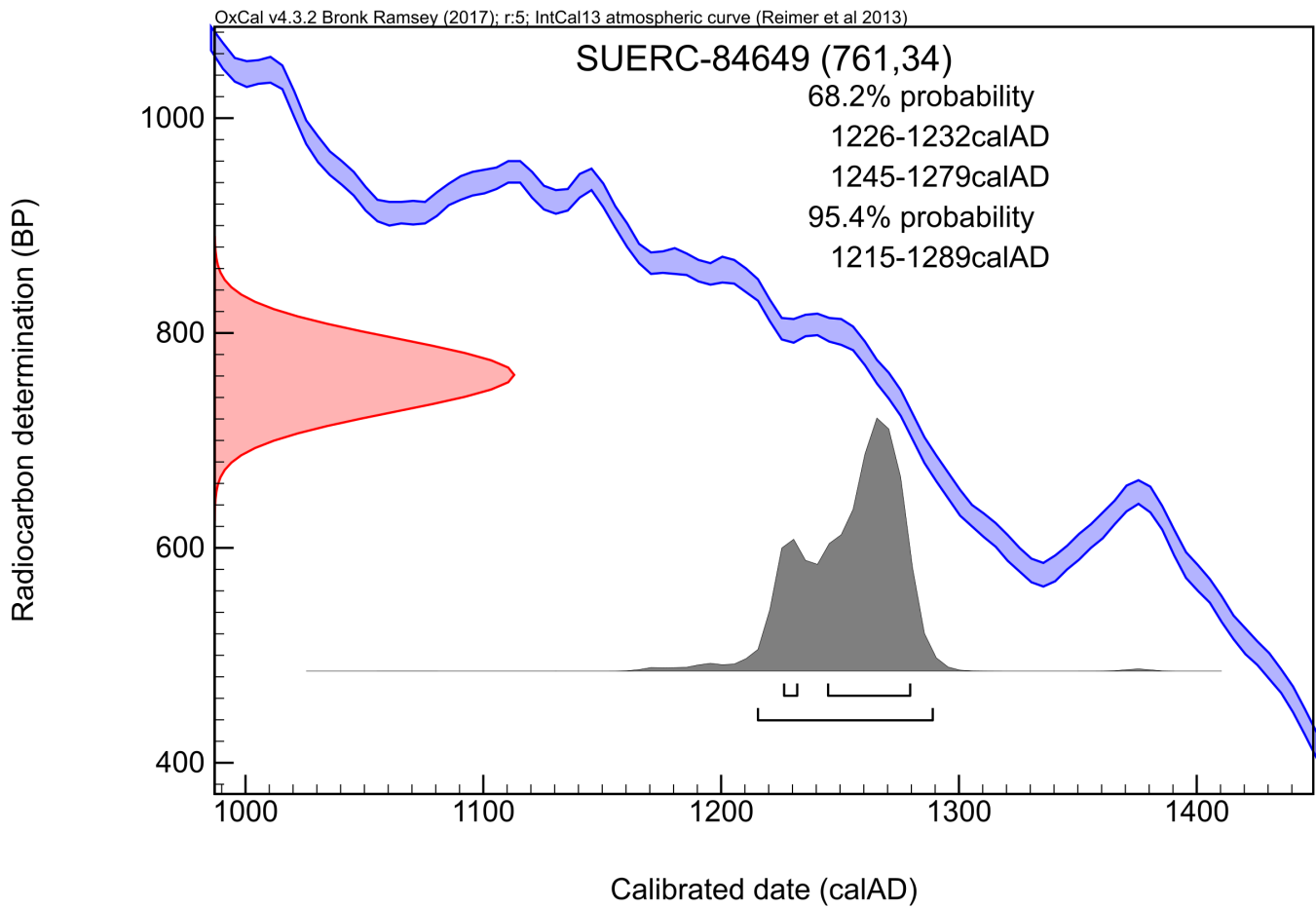
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*RADIOCARBON DATING CERTIFICATE*

20 February 2019

**Laboratory Code** SUERC-84650 (GU50193)

**Submitter** Paolo Forlin  
University of Durham  
Department of Archaeology  
South Road  
DH1 3LE  
Durham

**Site Reference** GR-EC18

**Context Reference** 105

**Sample Reference** C14-07

**Material** Charred plant remain : Fruit fragment cf. *Vitis vinifera*

**$\delta^{13}\text{C}$  relative to VPDB** -23.8 ‰

**Radiocarbon Age BP** 784  $\pm$  34

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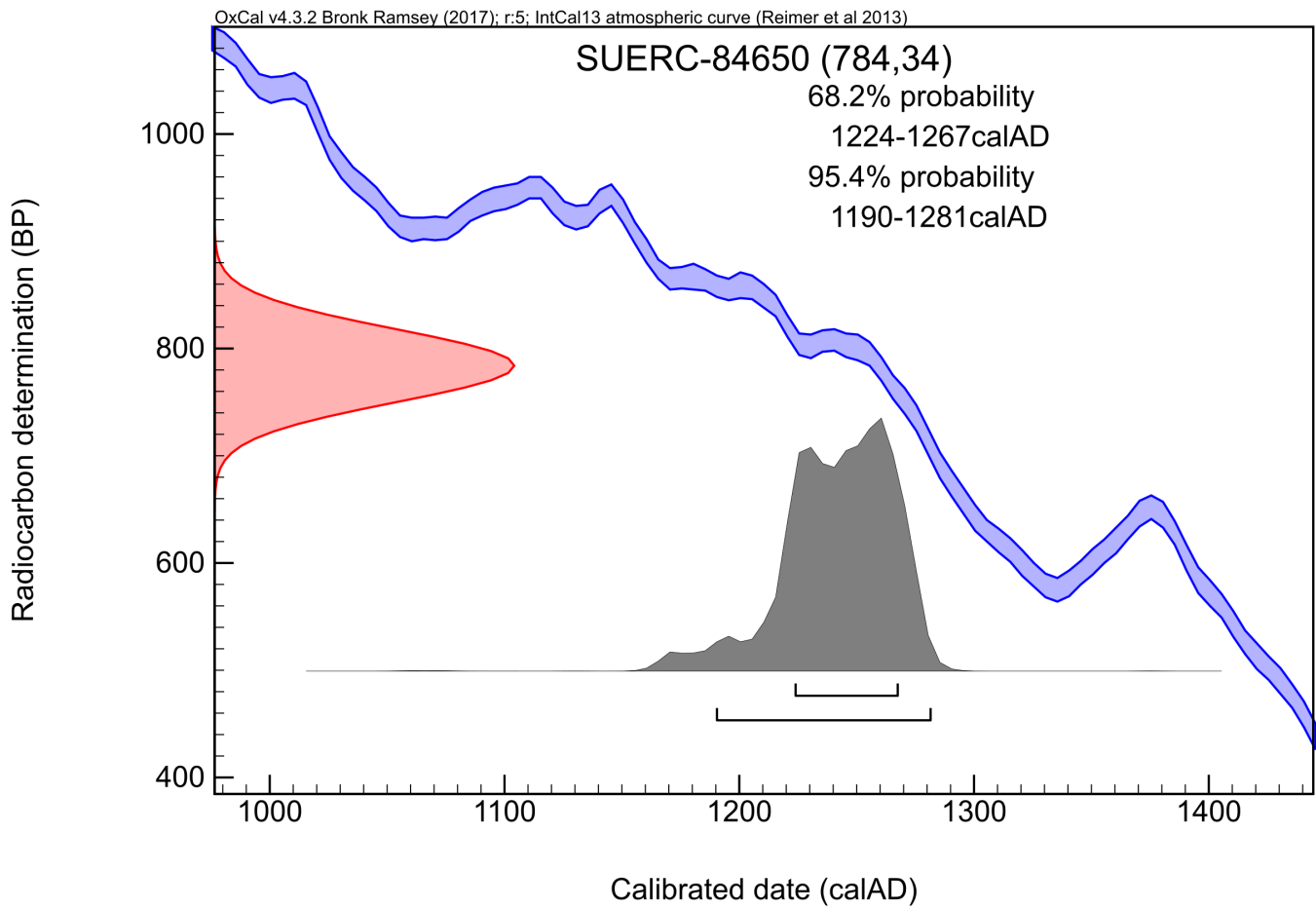
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20 February 2019

**Laboratory Code** SUERC-84651 (GU50194)  
**Submitter** Paolo Forlin  
University of Durham  
Department of Archaeology  
South Road  
DH1 3LE  
Durham  
**Site Reference** GR-EC18  
**Context Reference** 3011  
**Sample Reference** C14-08  
**Material** Charcoal : Fabaceae (roundwood)  
 **$\delta^{13}\text{C}$  relative to VPDB** -24.5 ‰  
**Radiocarbon Age BP** 789  $\pm$  34

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, 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.

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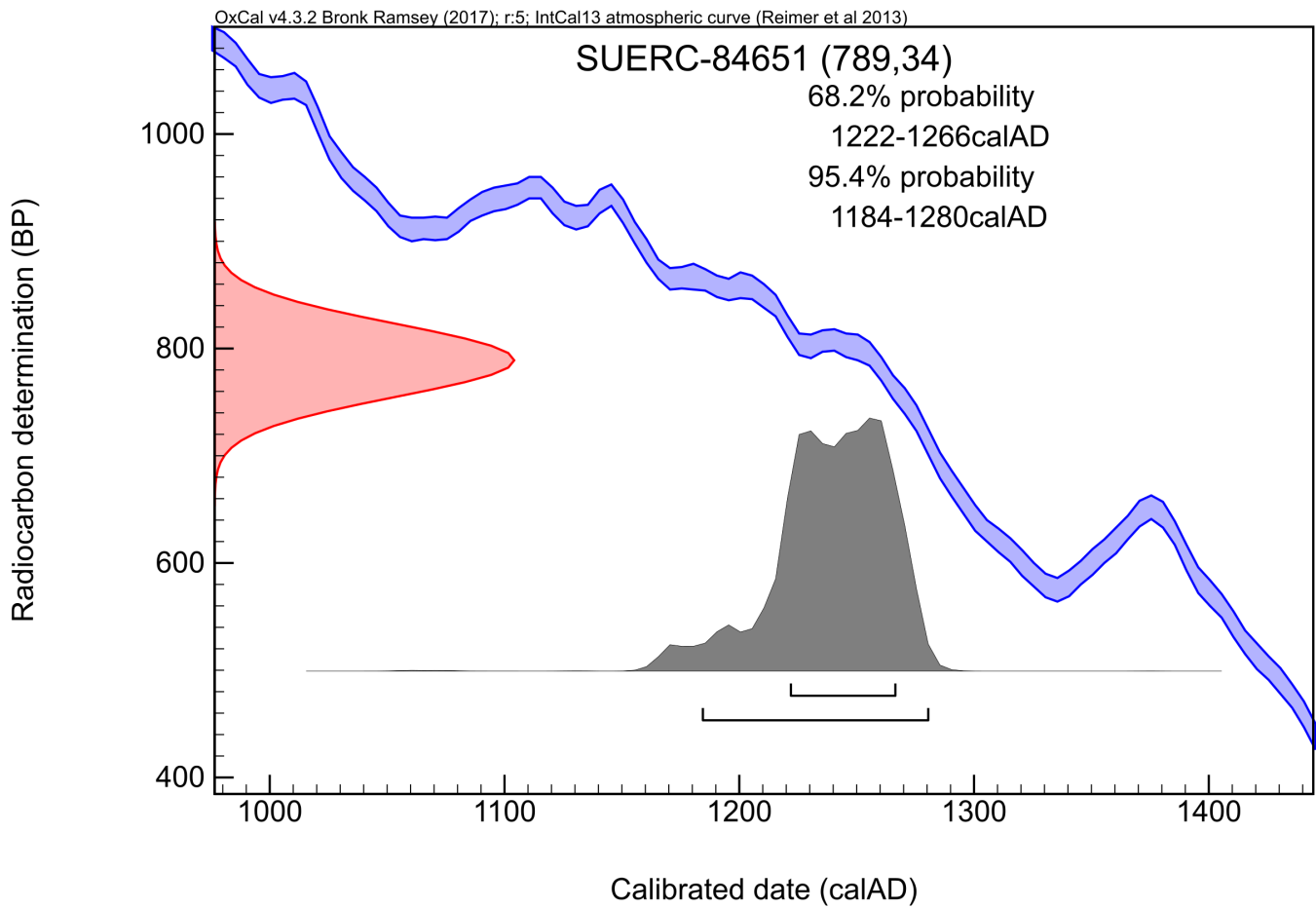
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