



RADIOCARBON DATING CERTIFICATE

05 August 2014

Laboratory Code SUERC-54221 (GU34486)

Submitter Jane Kenney
Gwynedd Archaeological Trust
Craig Beuno, Ffordd y Garth
Bangor
Gwynedd LL57 2RT

Site Reference Hen Gastell, Llanwnda, Gwynedd, North Wales
Context Reference context 17: fill of slot in inner bank
Sample Reference G2246.17.01

Material Charred nut shell : Hazel (Corylus avellana)

$\delta^{13}\text{C}$ relative to VPDB -27.3 ‰

Radiocarbon Age BP 999 \pm 30

N.B. The above ^{14}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 g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

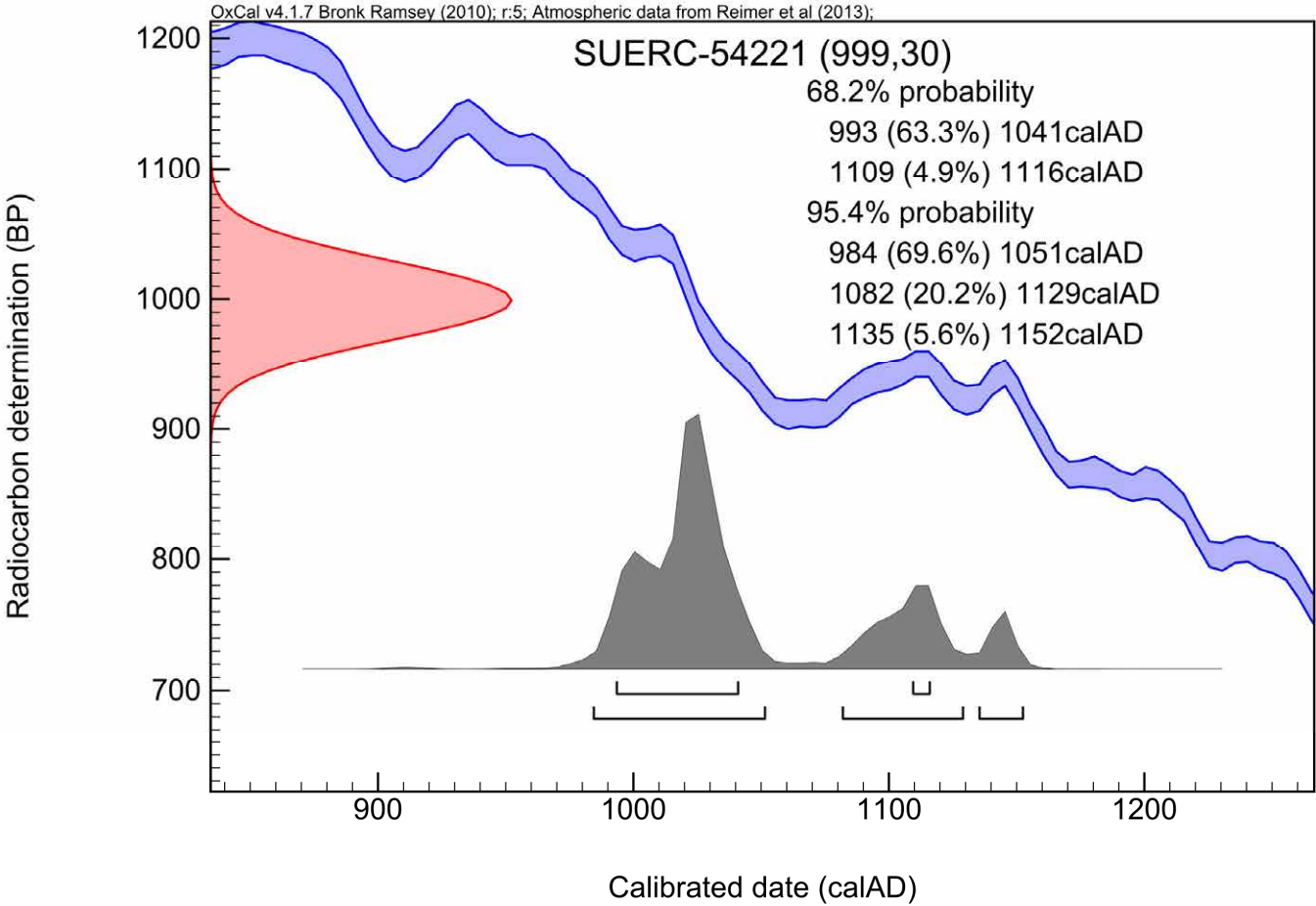
Conventional age and calibration age ranges calculated by :-

Date :- 05/08/2014

Checked and signed off by :-

Date :- 05/08/2014

Calibration Plot





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Gwynedd LL57 2RT

Site Reference Hen Gastell, Llanwnda, Gwynedd, North Wales
Context Reference context 17: fill of slot in inner bank
Sample Reference G2246.17.02

Material Charred cereal grains : Oats (Avena species)

$\delta^{13}\text{C}$ relative to VPDB -26.3 ‰

Radiocarbon Age BP 885 ± 30

N.B. The above ^{14}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.

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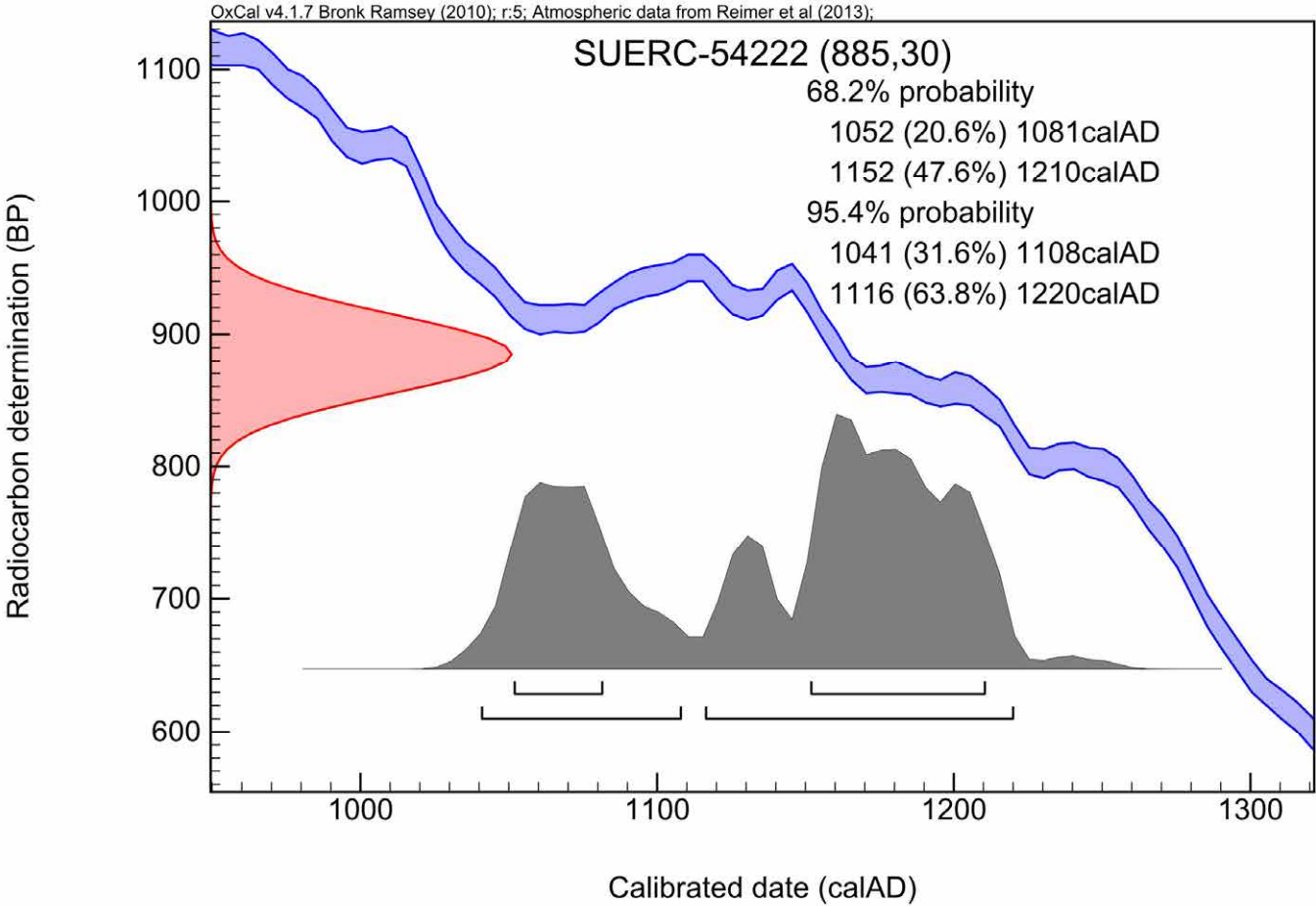
Conventional age and calibration age ranges calculated by :-

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Checked and signed off by :-

Date :- 05/08/2014

Calibration Plot





RADIOCARBON DATING CERTIFICATE

05 August 2014

Laboratory Code SUERC-54223 (GU34488)

Submitter Jane Kenney
Gwynedd Archaeological Trust
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Bangor
Gwynedd LL57 2RT

Site Reference Hen Gastell, Llanwnda, Gwynedd, North Wales
Context Reference context 21: buried soil under inner bank
Sample Reference G2246.21.01

Material Charred nut shell fragment : Hazel (Corylus avellana)

$\delta^{13}\text{C}$ relative to VPDB -27.6 ‰

Radiocarbon Age BP 1010 \pm 30

N.B. The above ^{14}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).

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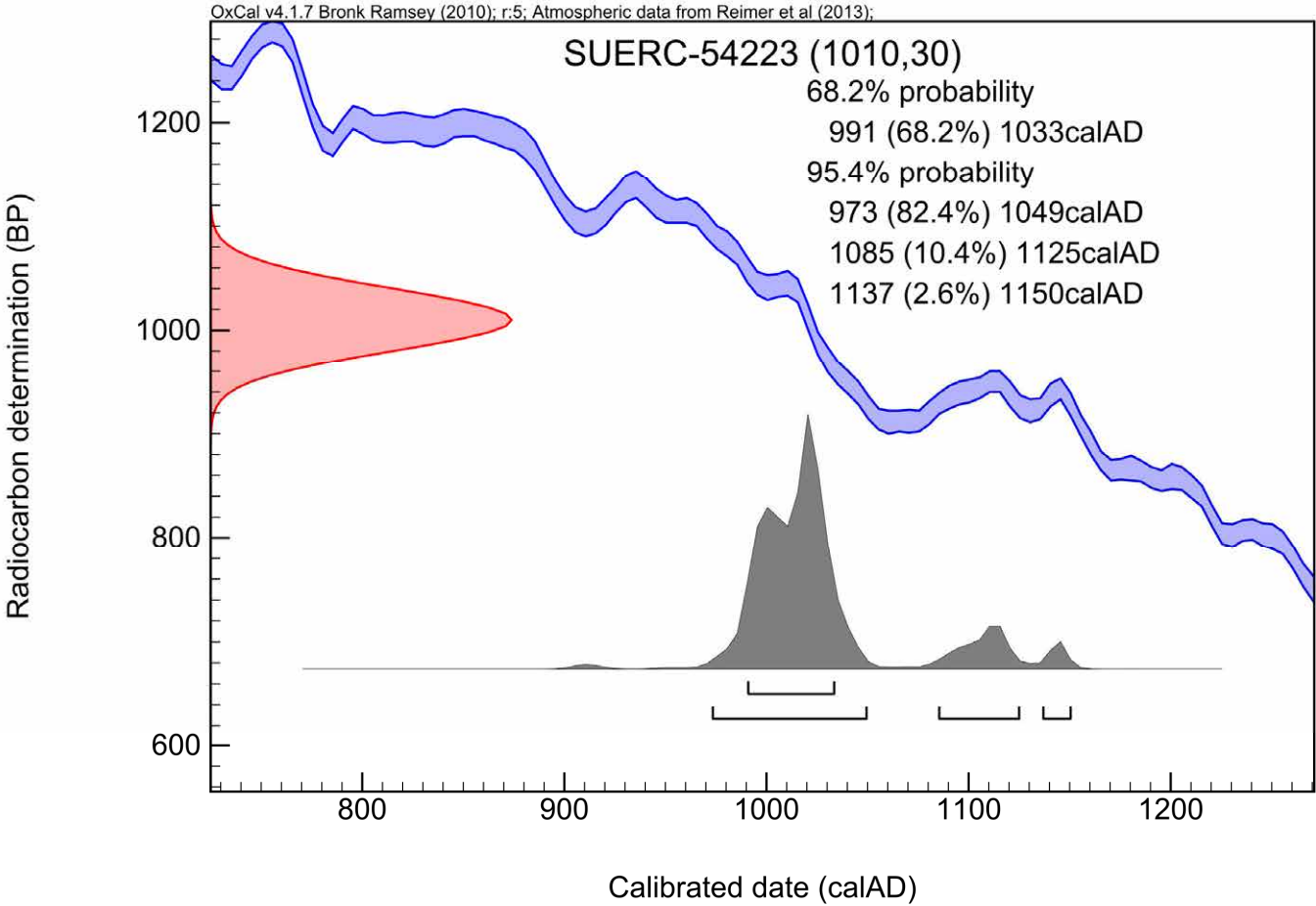
Conventional age and calibration age ranges calculated by :-

Date :- 05/08/2014

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Date :- 05/08/2014

Calibration Plot





Scottish Universities Environmental Research Centre

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RADIOCARBON DATING CERTIFICATE

05 August 2014

Laboratory Code SUERC-54227 (GU34489)

Submitter Jane Kenney
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Gwynedd LL57 2RT

Site Reference Hen Gastell, Llanwnda, Gwynedd, North Wales
Context Reference context 21: buried soil under inner bank
Sample Reference G2246.21.02

Material Charcoal : Willow/poplar (Salix/Populus)

$\delta^{13}\text{C}$ relative to VPDB -28.2 ‰

Radiocarbon Age BP 915 \pm 30

N.B. The above ^{14}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).

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Conventional age and calibration age ranges calculated by :-

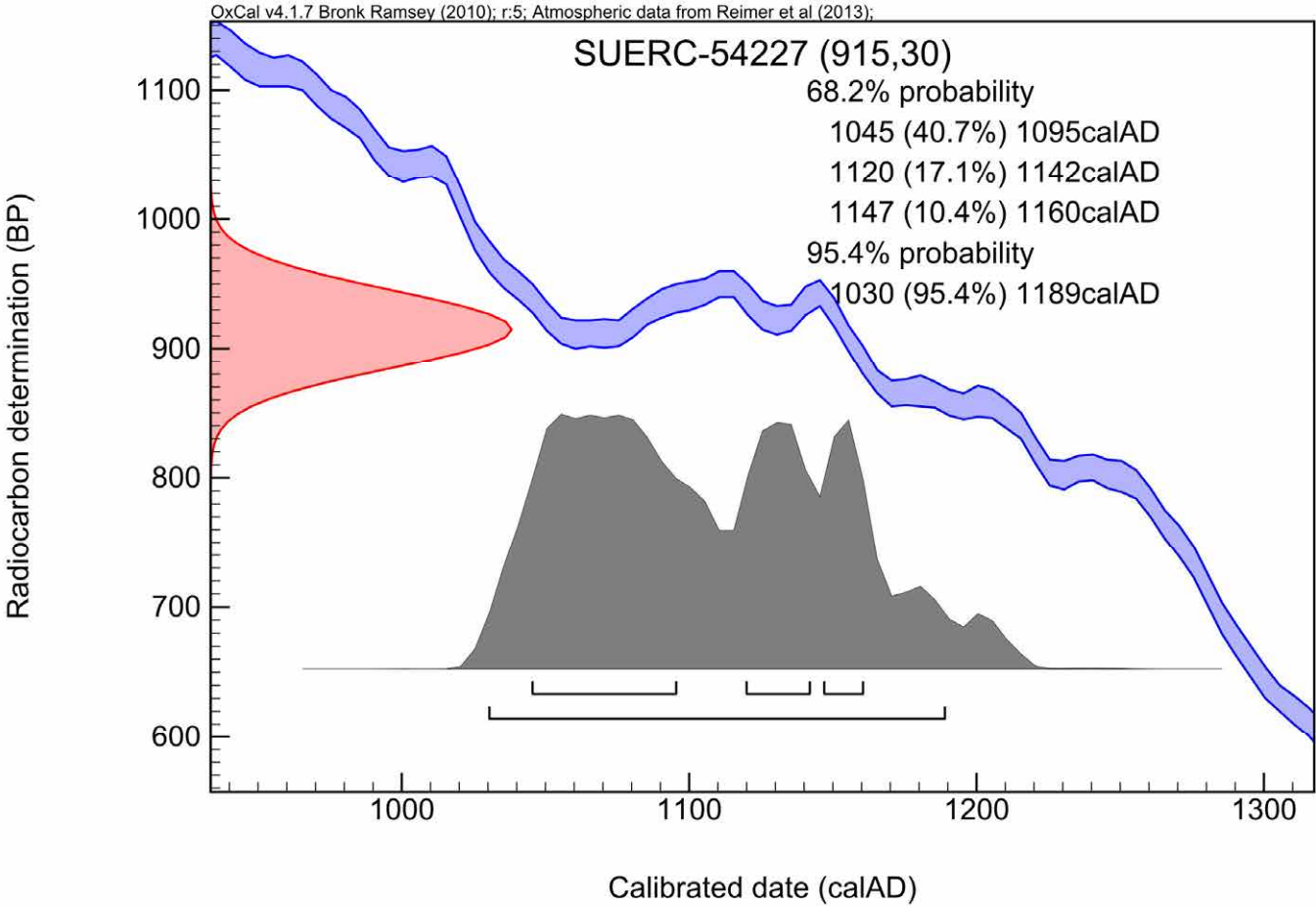
Date :- 05/08/2014

Checked and signed off by :-

Date :- 05/08/2014



Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64221 (GU39272)

Submitter Jane Kenney
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Gwynedd LL57 2RT

Site Reference G2246 Hen Gastell
Context Reference 2003 - burnt stone deposit
Sample Reference G2246 HG/08

Material Charred plant remains : Cereal gains (unidentifiable)

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

Radiocarbon Age BP 908 \pm 29

N.B. The above ^{14}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.

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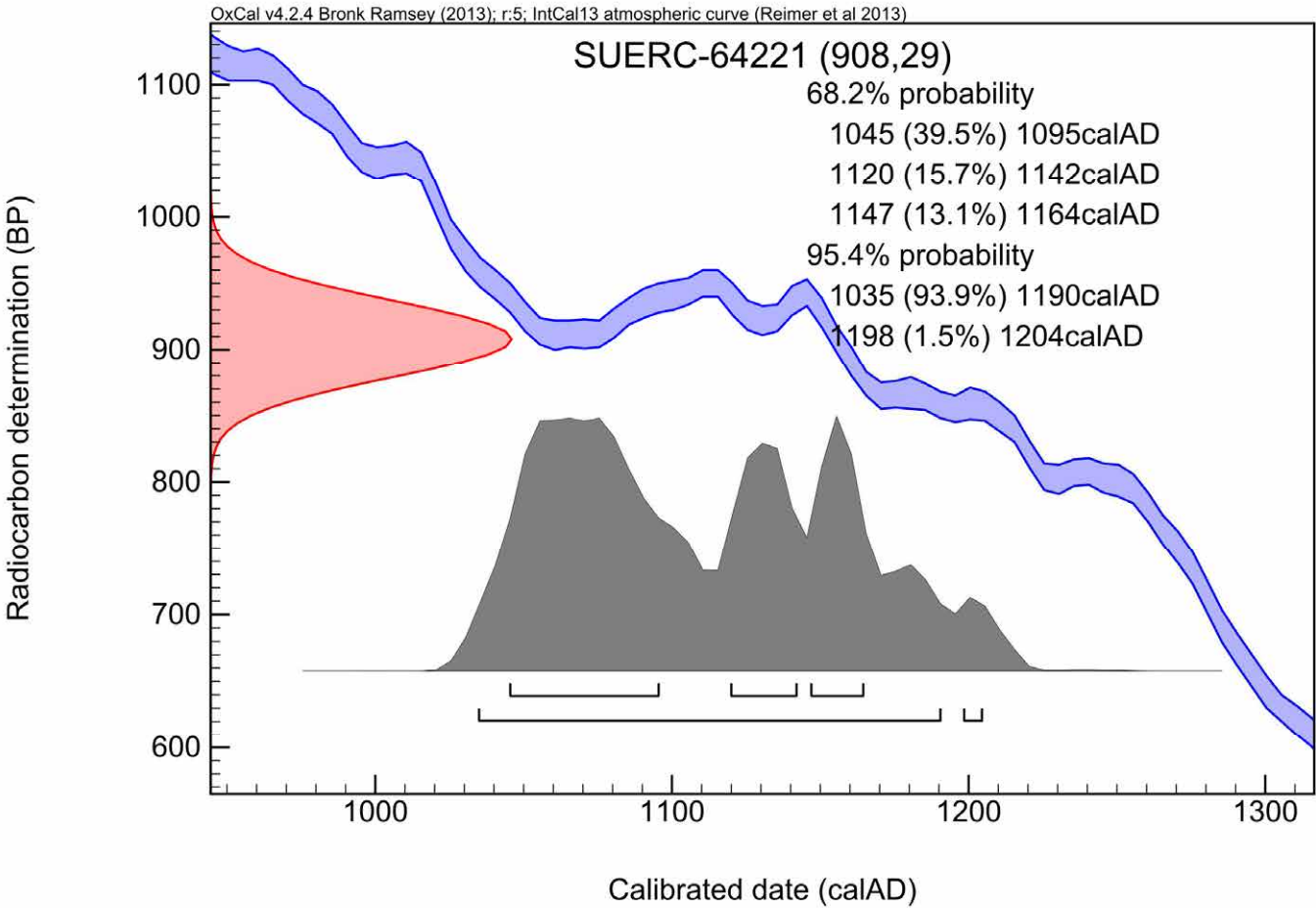
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/12/2015

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

Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64222 (GU39273)

Submitter Jane Kenney
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Site Reference G2246 Hen Gastell
Context Reference 2023 - burnt stone deposit
Sample Reference G2246 HG/16

Material Charred plant remains : Hazel nut shell fragments

$\delta^{13}\text{C}$ relative to VPDB -24.0 ‰

Radiocarbon Age BP 919 \pm 29

N.B. The above ^{14}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.

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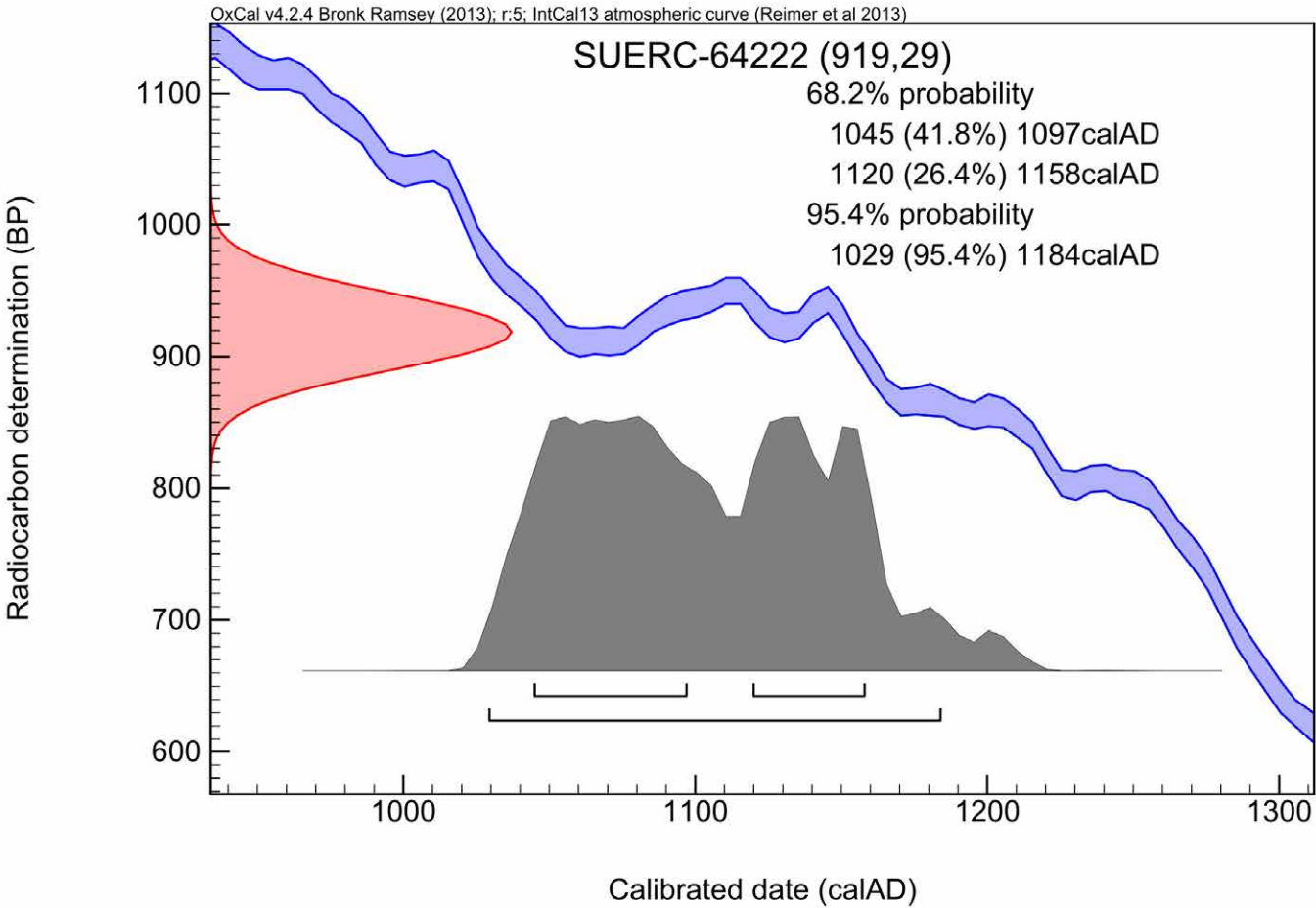
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/12/2015

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

Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64226 (GU39274)

Submitter Jane Kenney
Gwynedd Archaeological Trust
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Gwynedd LL57 2RT

Site Reference G2246 Hen Gastell
Context Reference 2069 - fill of post-pipe in posthole [2068]
Sample Reference G2246 HG/31

Material Charred plant remains : Hazel nut shell fragmnts

$\delta^{13}\text{C}$ relative to VPDB -28.2 ‰

Radiocarbon Age BP 922 \pm 29

N.B. The above ^{14}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.

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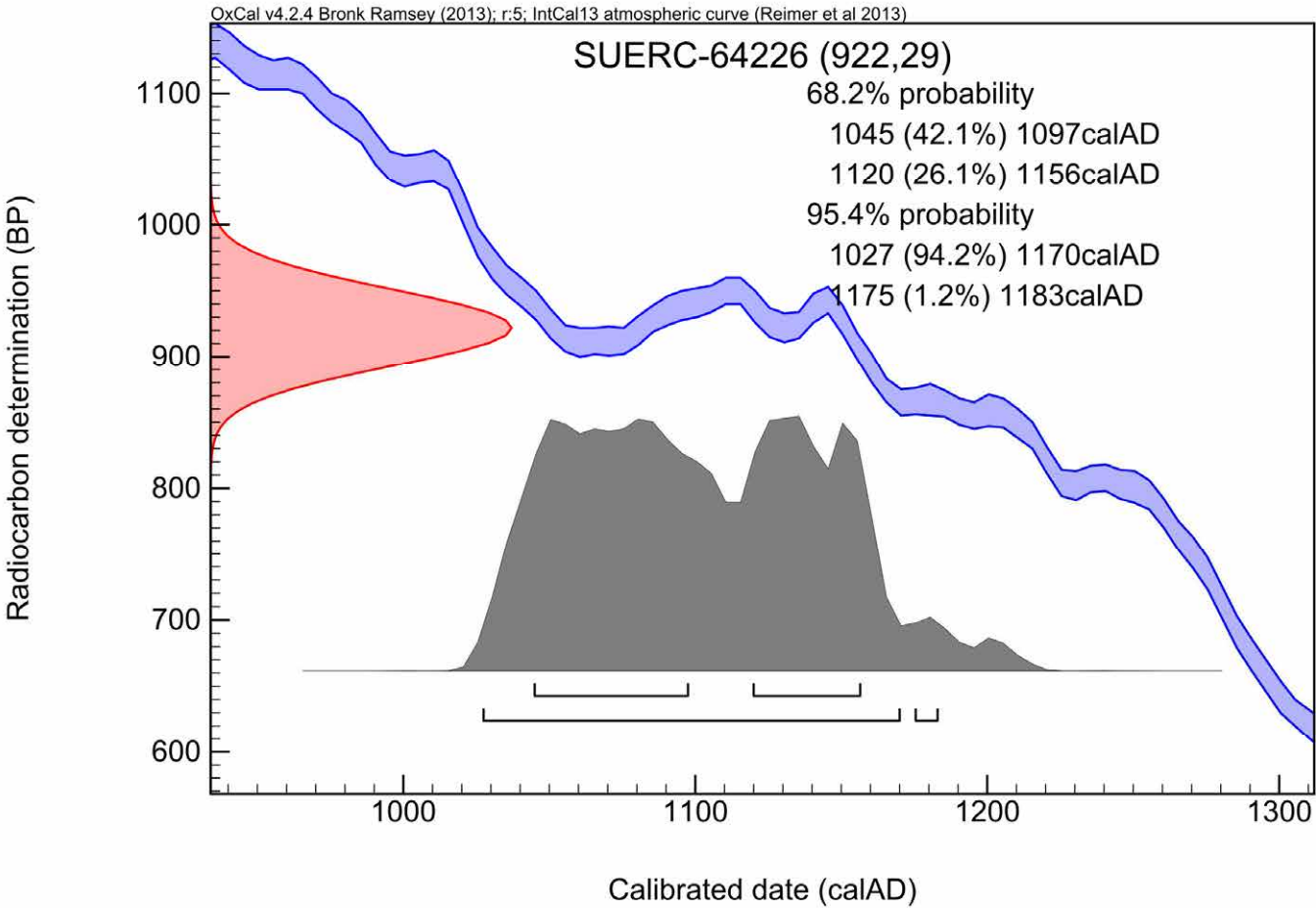
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/12/2015

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

Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64227 (GU39275)

Submitter Jane Kenney
Gwynedd Archaeological Trust
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Gwynedd LL57 2RT

Site Reference G2246 Hen Gastell
Context Reference 2070 - packing deposit in posthole [2068]
Sample Reference G2246 HG/20

Material Charred plant remains : Hazel nut shell fragments

$\delta^{13}\text{C}$ relative to VPDB -25.7 ‰

Radiocarbon Age BP 883 \pm 27

N.B. The above ^{14}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).

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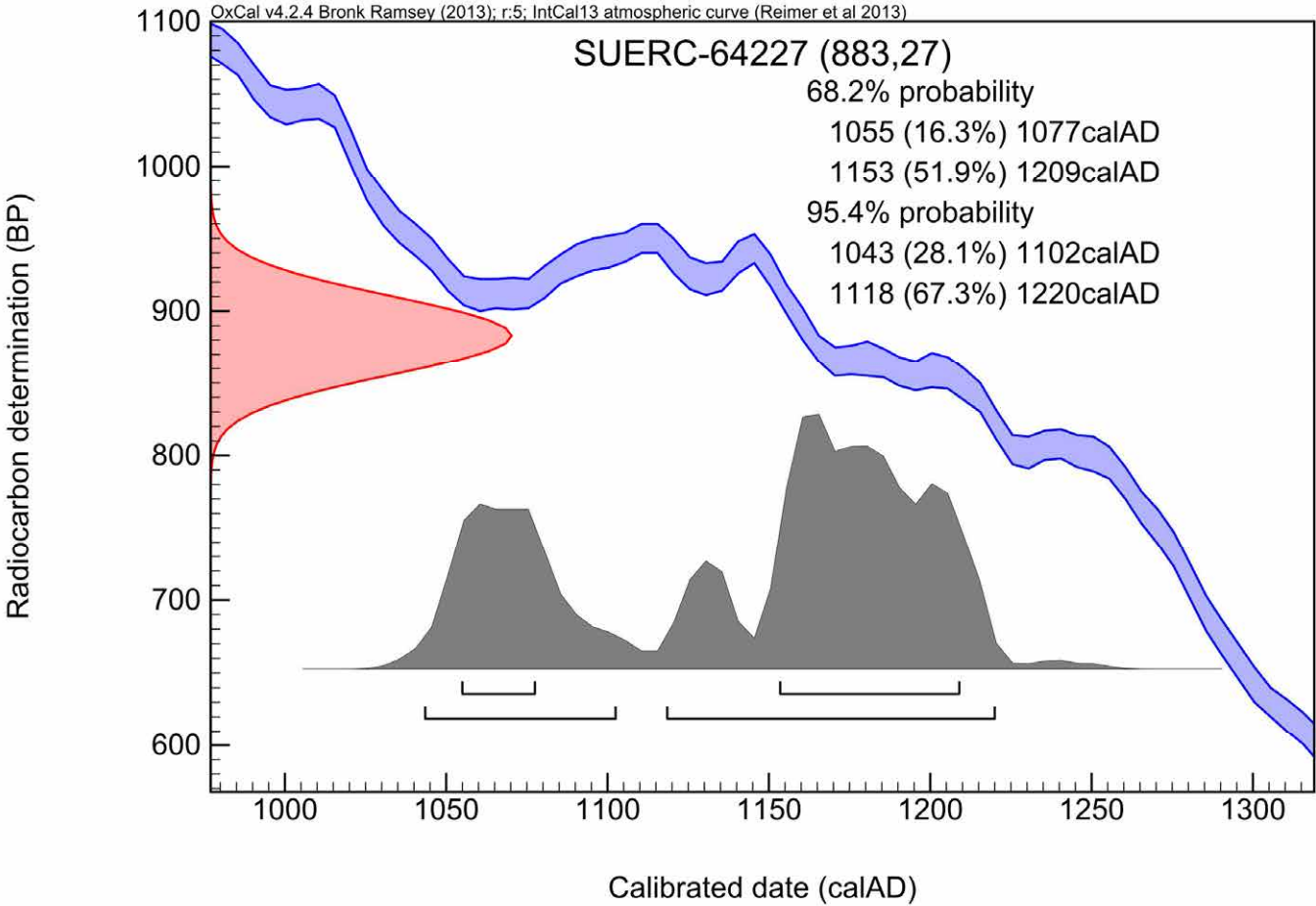
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/12/2015

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

Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64228 (GU39276)

Submitter Jane Kenney
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Site Reference G2246 Hen Gastell
Context Reference 2082 - burnt layer under bank
Sample Reference G2246 HG/28

Material Charred plant remains : Hazel nut shell fragments

$\delta^{13}\text{C}$ relative to VPDB -26.4 ‰

Radiocarbon Age BP 929 \pm 29

N.B. The above ^{14}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).

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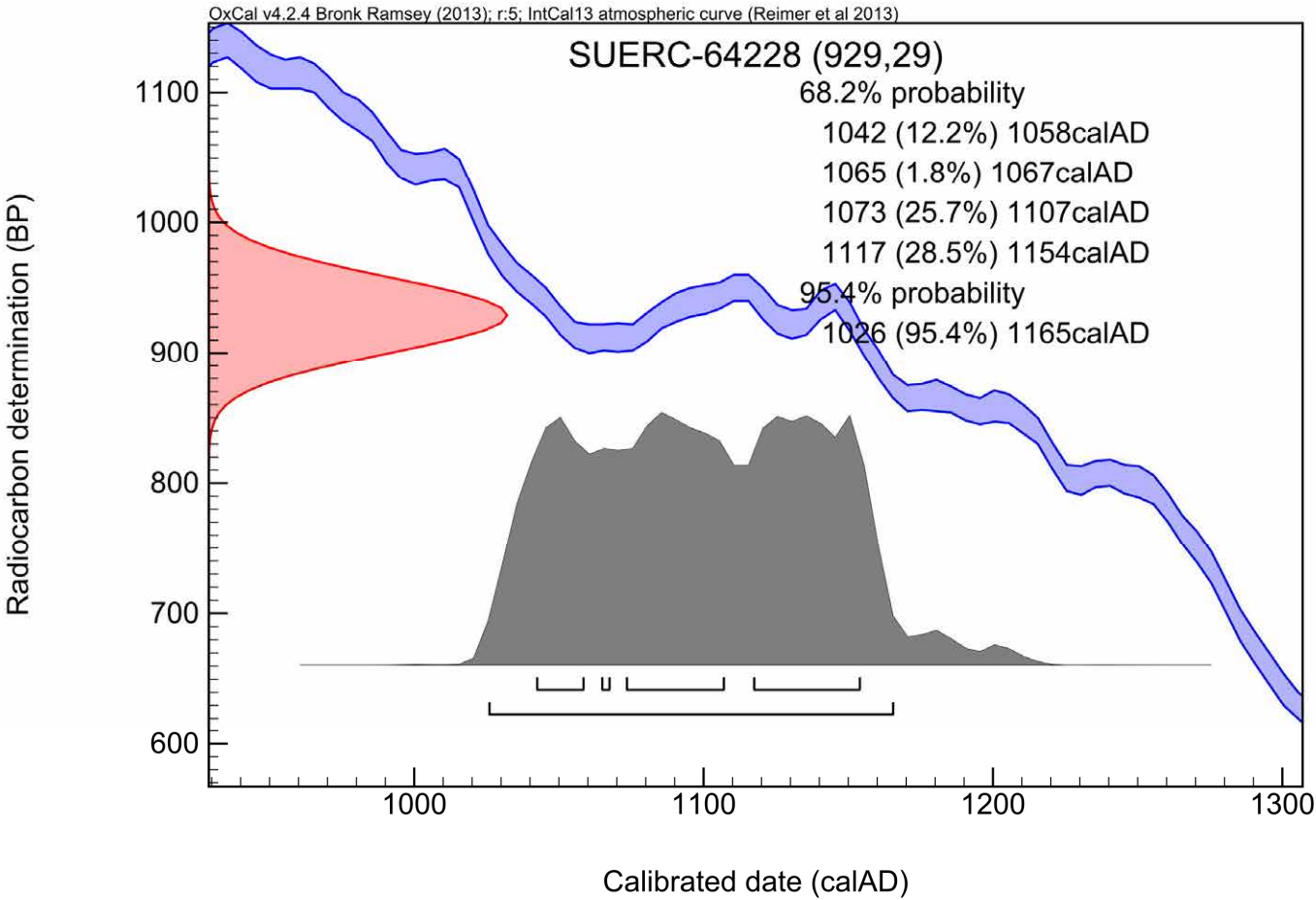
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/12/2015

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

Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64229 (GU39277)

Submitter Jane Kenney
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Site Reference G2246 Hen Gastell
Context Reference 2082 - burnt layer under bank
Sample Reference G2246 HG/41

Material Charred plant remains : Cereal grains (unidentifiable)

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

Radiocarbon Age BP 925 \pm 29

N.B. The above ^{14}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.

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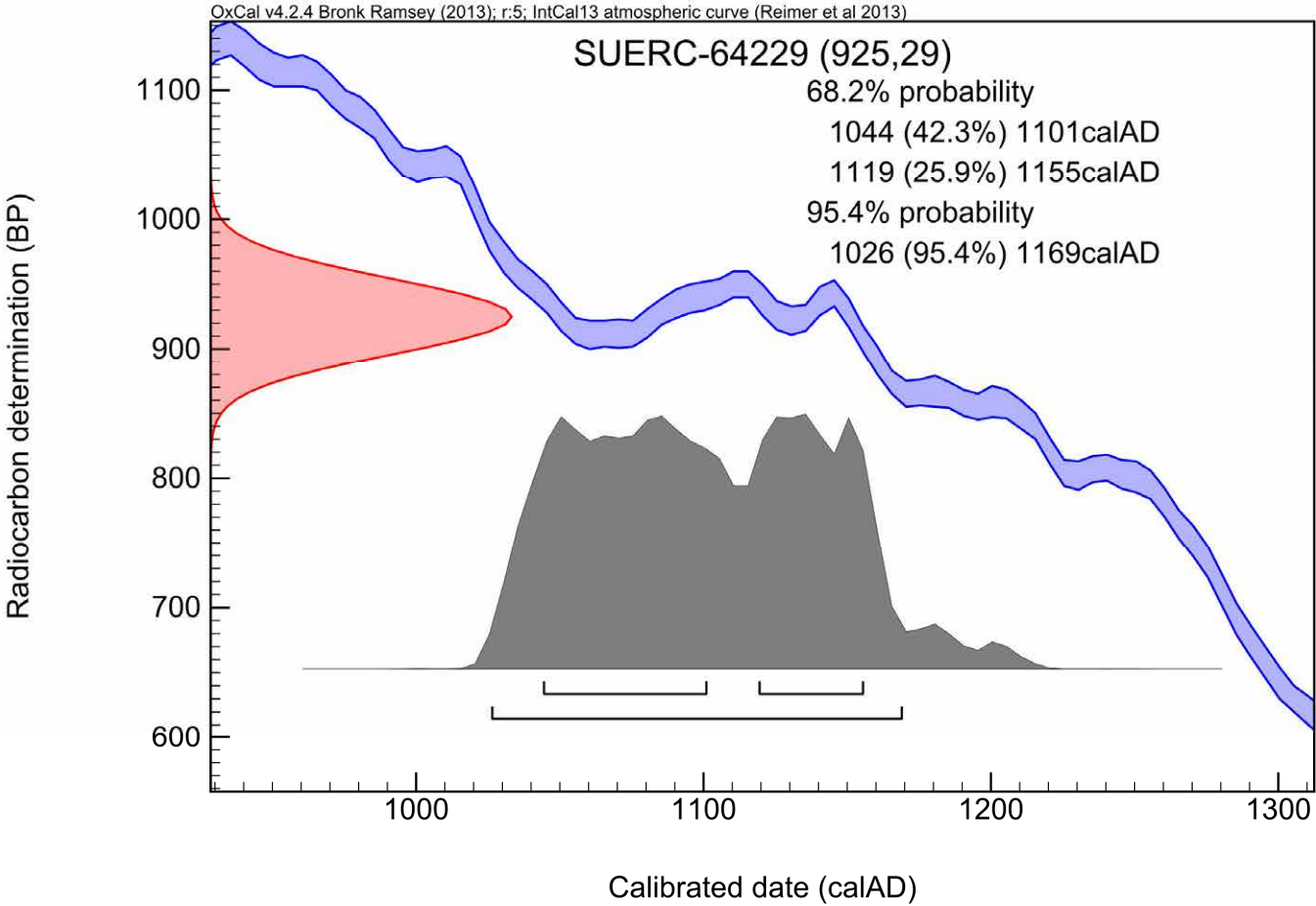
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/12/2015

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Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64230 (GU39278)

Submitter Jane Kenney
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Site Reference G2246 Hen Gastell
Context Reference 2093 - packing deposit in posthole [2092]
Sample Reference G2246 HG/34

Material Charred plant remains : Hazel nut shell fragments

$\delta^{13}\text{C}$ relative to VPDB -25.8 ‰

Radiocarbon Age BP 890 \pm 29

N.B. The above ^{14}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.

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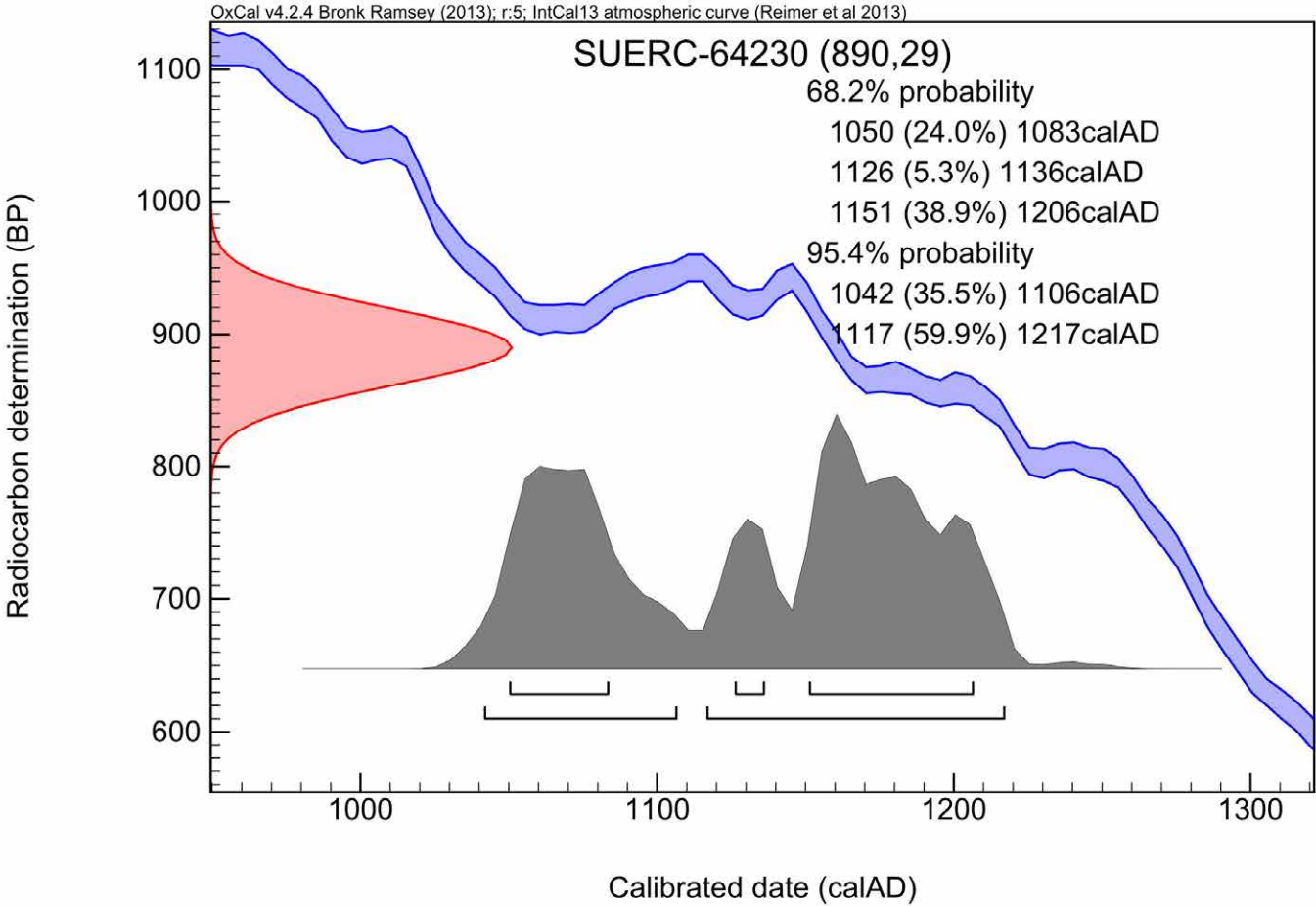
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Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64231 (GU39279)

Submitter Jane Kenney
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Gwynedd LL57 2RT

Site Reference G2246 Hen Gastell
Context Reference 2097 - fill of post-pipe in posthole [2092]
Sample Reference G2246 HG/38

Material Charred plant remains : Hazel nut shell fragments

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

Radiocarbon Age BP 865 \pm 29

N.B. The above ^{14}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.

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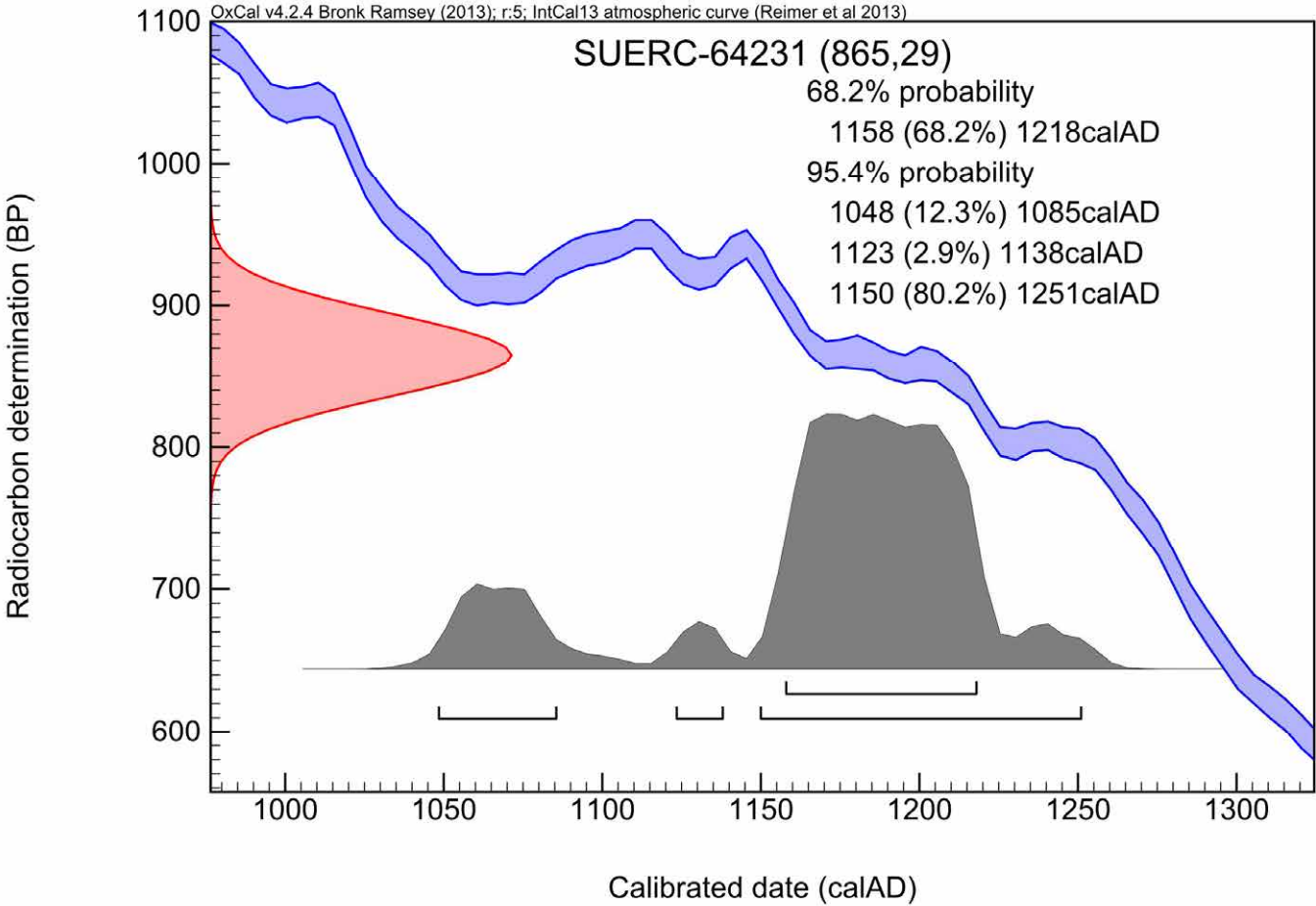
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Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64232 (GU39280)

Submitter Jane Kenney
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Gwynedd LL57 2RT

Site Reference G2246 Hen Gastell
Context Reference 2098 - clay deposit in metal-working pit [2078]
Sample Reference G2246 HG/32

Material Charred plant remains : Hazel nut shell fragments

$\delta^{13}\text{C}$ relative to VPDB -24.8 ‰

Radiocarbon Age BP 958 \pm 27

N.B. The above ^{14}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.

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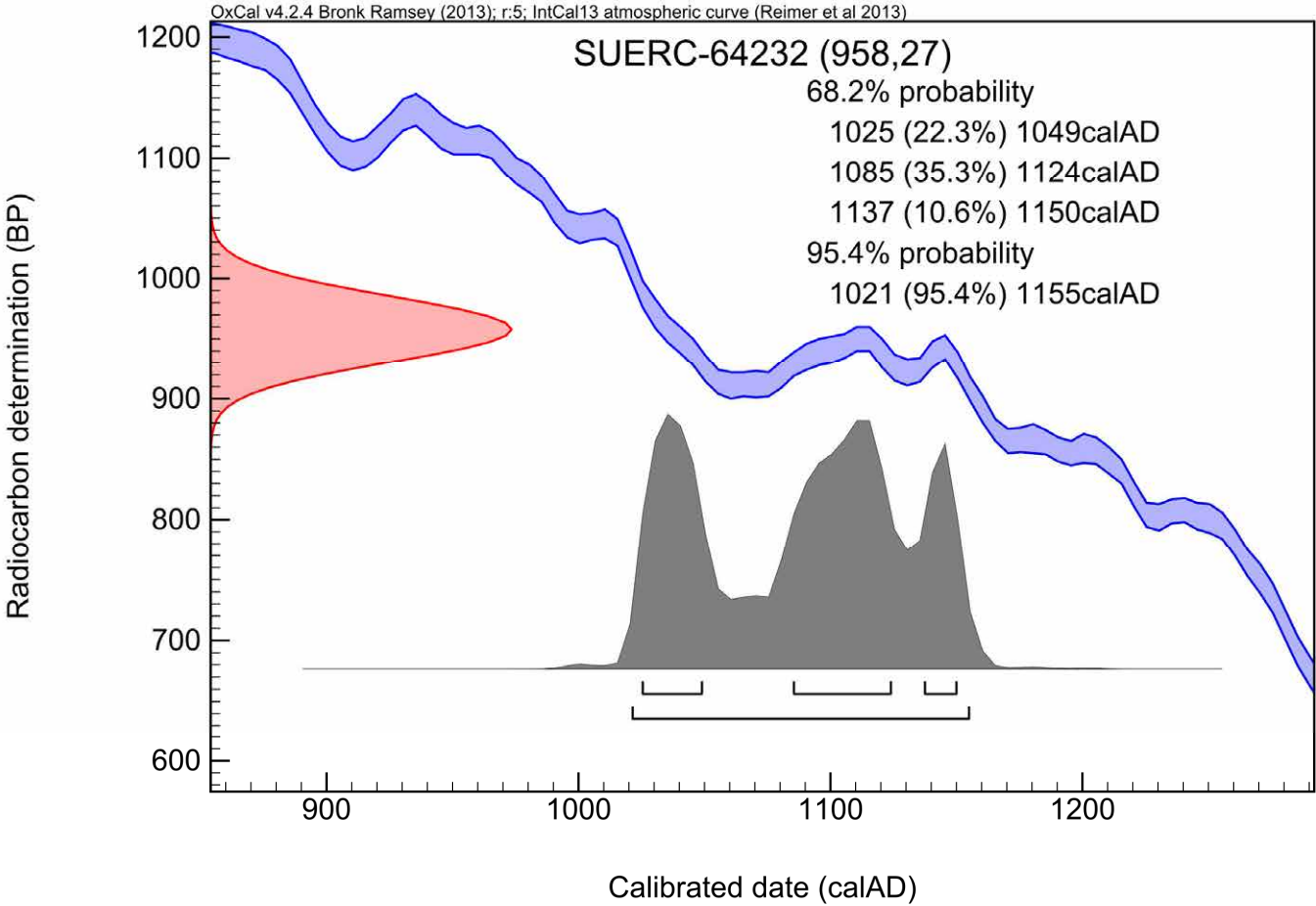
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 09/12/2015

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

Date :- 09/12/2015

Calibration Plot



RADIOCARBON DATING CERTIFICATE

09 December 2015

Laboratory Code SUERC-64236 (GU39281)

Submitter Jane Kenney
Gwynedd Archaeological Trust
Craig Beuno, Ffordd y Garth
Bangor
Gwynedd LL57 2RT

Site Reference G2246 Hen Gastell
Context Reference 2099 - burnt layer in metal-working pit [2078]
Sample Reference G2246 HG/33

Material Charred plant remains : Cereal grains (unidentifiable)

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

Radiocarbon Age BP 960 \pm 29

N.B. The above ^{14}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.

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

Date :- 09/12/2015

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