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Dr. Steve Ford
Thames Valley Archaeological Services
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Kiel, 19. August 2009

Result of Radiocarbon dating of your sample: KIA 39675

Dear Dr. Ford,

Please find enclosed the result of the radiocarbon dating of the sample mentioned above.

The sample was checked under the microscope and an appropriate amount of charcoal was selected for dating. The selected material was then extracted with 1 % HCl, 1 % NaOH at 60°C and again 1 % HCl (alkali residue). The combustion to CO_2 was performed in a closed quartz tube together with CuO and silver wool at 900 °C. The sample CO_2 was reduced with H_2 over about 2 mg of Fe powder as catalyst, and the resulting carbon/iron mixture was pressed into a pellet in the target holder.

The ^{14}C concentration of the sample was measured by comparing the simultaneously collected ^{14}C, ^{13}C, and ^{12}C beams of the sample with those of Oxalic Acid standard CO_2 and coal background material. The conventional ^{14}C age was calculated according to Stuiver and Polach (Radiocarbon **19**/3 (1977), 355) with a $\delta^{13}C$ correction for isotopic fractionation based on the $^{13}C/^{12}C$ ratio measured by our AMS-system simultaneously with the $^{14}C/^{12}C$ ratio (note: This $\delta^{13}C$ includes the effects of fractionation during graphitization and in the AMS-system and, therefore, cannot be compared with $\delta^{13}C$ values obtained per mass spectrometer on CO_2). For the determination of our measuring uncertainty (standard deviation σ) we observe both the counting statistics of the ^{14}C measurement and the variability of the interval results that, together, make up one measurement. The larger of the two is adopted as measuring uncertainty. To this we add the uncertainty connected with the subtraction of our "blank". The quoted 1σ uncertainty is thus our best estimate for the full measurement and not just based on counting statistics. "Calibrated" or calendar age was calculated using "CALIB rev 5.01" (Data set: IntCal04, Reimer et al., Radiocarbon **46**:1029-1058).

The sample gave more than the 1 mg of carbon recommended for a precise measurement and produced sufficient ion beam. The $\delta^{13}C$ value is in the normal range and insofar the result is reliable.

Please don´t hesitate to contact me should you have any questions regarding this result.

Sincerely Yours

(P.M. Grootes)

KIA39675 PFW 04/16 sample4 PIT 103 (163)

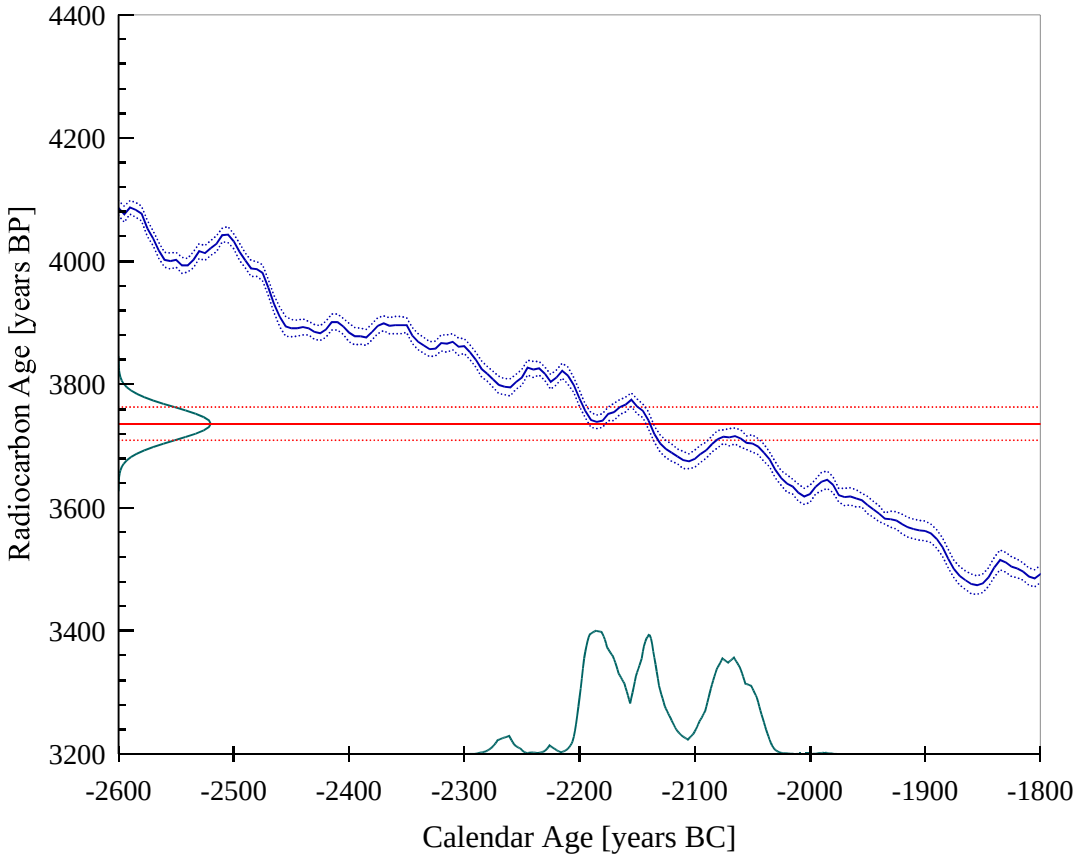
Hazelnut Charcoal; Philliols Farm Bere Regis, Dorset, sy 8615 9120; sample depth: 0,6 m

Fraction	Corrected pMC†	Conventional Age	$\delta^{13}C$(‰)‡
Charred hazelnut shell, alkali residue, 6.0 mg C	62.81 ± 0.21	3735 ± 25 BP	-23.63 ± 0.25

Radiocarbon Age: BP 3736 ± 27

One Sigma Range: cal BC 2198 - 2161 (Probability 31.4 %)
(Probability 68,3 %) 2152 - 2131 (Probability 16.4 %)
2085 - 2056 (Probability 20.5 %)

Two Sigma Range: cal BC 2265 - 2260 (Probability 1.0 %)
(Probability 95,4 %) 2205 - 2109 (Probability 60.1 %)
2104 - 2036 (Probability 34.3 %)



References for calibration:

The calibrated age was calculated using "CALIB rev 5.01"
Data set : IntCal04, Reimer et al., Radiocarbon 46:1029-1058.

† "Corrected pMC" indicates the percent of modern (1950) carbon corrected for fractionation using the ^{13}C measurement.

‡ Please note that the $\delta\ ^{13}C$ includes the fractionation occurring in the sample preparation as well as in the AMS measurement and therefore cannot be compared to a mass-spectrometer measurement.