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Radiocarbon Date Certificate

Laboratory Identification: UBA-39059
Date of Measurement: 2018-10-29
Site: Nahal Ze 'elim
Sample ID: RCNZ1832
Material Dated: charcoal
Pretreatment: AAA
Submitted by: Jeff Williams

Conventional ¹⁴ C
Age: 2033±27 BP
using AMS
Fraction corrected δ ¹³ C

UBANo	Sample ID	Material Type	¹⁴ C Age	±	F14C	±
UBA-39058	RCNZ18111	twig	1918	27	0.7876	0.0026
UBA-39059	RCNZ1832	twig	2033	27	0.7764	0.0026
UBA-39060	RCNZ1826	twig	4175	30	0.5947	0.0022
UBA-39061	RCNZ1820	twig	2144	39	0.7657	0.0037

Information about radiocarbon calibration

RADIOCARBON CALIBRATION PROGRAM*
CALIB REV7.0.0

Copyright 1986–2013 M Stuiver and PJ Reimer

*To be used in conjunction with:

Stuiver, M., and Reimer, P.J., 1993, Radiocarbon, 35, 215–230.

Annotated results (text) – –

Export file – c14res.csv

39058

UBA-39058

Radiocarbon Age BP 1918 +/- 27

Calibration data set: intcal13.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal AD 60– 91

98– 124

95.4 (2 sigma) cal AD 20– 134

Reimer et al. 2013

relative area under
probability distribution

0.581

0.419

1.000

39059

UBA-39059

Radiocarbon Age BP 2033 +/- 27

Calibration data set: intcal13.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal BC 88– 76

56– cal AD 5

cal AD 14– 15

95.4 (2 sigma) cal BC 154– 139

112– cal AD 29

cal AD 38– 49

Reimer et al. 2013

relative area under
probability distribution

0.097

0.888

0.015

0.022

0.959

0.019

39060

UBA-39060

Radiocarbon Age BP 4175 +/- 30

Calibration data set: intcal13.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal BC 2877– 2855

2811– 2746

2725– 2697

95.4 (2 sigma) cal BC 2884– 2834

2818– 2663

2647– 2637

Reimer et al. 2013

relative area under
probability distribution

0.192

0.576

0.231

0.216

0.770

0.014

39061

UBA-39061

Radiocarbon Age BP 2144 +/- 39

Calibration data set: intcal13.14c

% area enclosed cal AD age ranges

68.3 (1 sigma) cal BC 349– 315

208– 109

95.4 (2 sigma) cal BC 356– 284

256– 248

235– 53

Reimer et al. 2013

relative area under
probability distribution

0.231

0.769

0.262

0.009

0.729

References for calibration datasets:

Reimer PJ, Bard E, Bayliss A, Beck JW, Blackwell PG, Bronk Ramsey C, Buck CE, Cheng H, Edwards RL, Friedrich M, Grootes PM, Guilderson TP, Haflidason H, Hajdas I, HattÄ C, Heaton TJ, Hogg AG, Hughen KA, Kaiser KF, Kromer B,

Manning SW, Niu M, Reimer RW, Richards DA, Scott EM, Southon JR, Turney CSM,
van der Plicht J.

IntCal13 and MARINE13 radiocarbon age calibration curves 0-50000 years calBP
Radiocarbon 55(4). DOI: 10.2458/azu_js_rc.55.16947

Comments:

* This standard deviation (error) includes a lab error multiplier.

** 1 sigma = square root of (sample std. dev.^2 + curve std. dev.^2)

** 2 sigma = 2 x square root of (sample std. dev.^2 + curve std. dev.^2)

where ^2 = quantity squared.

[] = calibrated range impinges on end of calibration data set

0* represents a "negative" age BP

1955* or 1960* denote influence of nuclear testing C-14

NOTE: Cal ages and ranges are rounded to the nearest year which
may be too precise in many instances. Users are advised to
round results to the nearest 10 yr for samples with standard
deviation in the radiocarbon age greater than 50 yr.

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