Supplementary Information

Model code used in OxCal Bayesian model (Bronk Ramsey 2008) for Laguna La Trapananda

P\_Sequence("LLT",17.5,U(-2,2)){Curve("ShCal13");

Boundary("Core Bottom"){ z=5.06;};

Date("MENo"){z=4.97;};

Date("Ho"){z=4.92;};

R\_Date("013303",15192,59){ z=4.88; };

Boundary("a"){ z=4.88};

Date("Z1"){z=4.635;};

Date("Y1"){z=4.41;};

R\_Date("017345",13878,43){ z=4.36; };

Boundary("b"){ z=4.36};

Date("X3"){z=4.285;};

Date("X2"){z=4.255;};

Date("U1"){z=3.525;};

Date("T"){z=3.41;};

R\_Date("013304",12668,47){ z=3.28; };

Boundary("c"){ z=3.28};

Date("S1"){z=3.165;};

Date("Q3"){z=2.865;};

Date("Q2"){z=2.81;};

R\_Date("017344",9804,38){ z=2.775; };

Boundary("d"){ z=2.775};

Date("Q1"){z=2.755;};

Date("P1"){z=2.59;};

Date("O2"){z=2.505;};

Date("O1"){z=2.41;};

R\_Date("017343",8229,38){ z=2.375; };

Boundary("e"){ z=2.375};

Date("N2"){z=2.16;};

Date("L4"){z=1.99;};

Date("L1n"){z=1.66;};

Date("I2"){z=1.585;};

R\_Date("H2",3612.5,50){ z=1.53;};

Boundary("f"){ z=1.53};

Date("G3"){z=1.50;};

Date("G2"){z=1.41;};

Date("G1"){z=1.39;};

R\_Date("017342",3082,22){ z=1.37; };

Boundary("g"){ z=1.37};

Date("F1"){z=0.92;};

Date("E4"){z=0.86;};

Date("E3"){z=0.83;};

Date("E2"){z=0.77;};

Date("E1"){z=0.76;};

Date("D3"){z=0.735;};

Date("D2"){z=0.70;};

R\_Date("013305",1636,29){ z=0.625; };

Boundary("h"){ z=0.625};

Date("B2"){z=0.515;};

Date("B1"){z=0.435;};

Boundary("Core Top"){z=0;};

};