Supplementary table 1. Sensitivity analysis results comparing the impact of different GIA models on cosmogenic nuclide exposure age calculation. All ages were calculated used the ExPage script and integrated GIA correction within Octave.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Sample number | Standard | ICE-6G | Lambeck et al (2017) | Gowan (2021) | ICE-6G difference | Lambeck difference | Gowan difference |
| NW-18-07 | 13760 | 14423 | 13860 | 13237 | -663 | -100 | 523 |
| NW-18-09 | 13889 | 14609 | 14003 | 13359 | -720 | -114 | 530 |
| NW-18-19 | 13307 | 13822 | 13371 | 12781 | -515 | -64 | 526 |
| NW-18-20 | 15139 | 16440 | 15450 | 14538 | -1301 | -311 | 601 |
| NW-18-21 | 19840 | 23223 | 20812 | 19120 | -3383 | -972 | 720 |
| NW-18-22 | 13243 | 13737 | 13302 | 12720 | -494 | -59 | 523 |
| NW-18-10 | 17448 | 19233 | 17776 | 16834 | -1785 | -328 | 614 |
| NW-18-11 | 16693 | 18096 | 16944 | 16099 | -1403 | -251 | 594 |
| NW-18-12 | 16791 | 18248 | 17054 | 16195 | -1457 | -263 | 596 |
| NW-18-15 | 32868 | 36264 | 34041 | 31555 | -3396 | -1173 | 1313 |
| NW-18-16 | 102815 | 105800 | 103500 | 97682 | -2985 | -685 | 5133 |
| NW-18-17 | 25187 | 28623 | 26417 | 24580 | -3436 | -1230 | 607 |
| NW-18-18 | 268292 | 270230 | 267760 | 261429 | -1938 | -532 | 6863 |
| NWT-MM\_15-01 | 19454 | 24047 | 21064 | 19794 | -4593 | -1610 | -340 |
| NWT-MM-15-02 | 17473 | 20851 | 18710 | 17721 | -3378 | -1237 | -248 |
| NWT-MM-15-03 | 15475 | 17683 | 16278 | 15558 | -2208 | -803 | -83 |
| NWT-MM-15-04 | 14700 | 16449 | 15318 | 14711 | -1749 | -618 | -11 |
| NWT-MM-15-05 | 14070 | 15447 | 14537 | 14028 | -1377 | -467 | 42 |
| NWT-MM-15-06 | 15064 | 17052 | 15776 | 15112 | -1988 | -712 | -48 |
| NWT-MM-15-07 | 14553 | 16250 | 15147 | 14555 | -1697 | -594 | -2 |
| NWT-MM-15-08 | 18063 | 21929 | 19455 | 18366 | -3866 | -1392 | -303 |
| NWT-MM-15-09 | 14959 | 17108 | 15717 | 15013 | -2149 | -758 | -54 |
| NWT-MM-15-10 | 15961 | 18773 | 16982 | 16117 | -2812 | -1021 | -156 |
| NWT-MM-15-11 | 15299 | 17596 | 16109 | 15433 | -2297 | -810 | -134 |
| NWT-MM-15-12 | 13460 | 14567 | 13822 | 13413 | -1107 | -362 | 47 |
| NWT-MM-15-13 | 14338 | 16105 | 14926 | 14418 | -1767 | -588 | -80 |
| NWT-MM-15-14 | 13870 | 15315 | 14334 | 13900 | -1445 | -464 | -30 |