**Supplementary Table 2. SHRIMP zircon U–Pb analytical results for the late Permian tuff and basalt in the SCB.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Analysis | %206Pbc | U (ppm) | Th (ppm) | 232Th/238U | 206Pb\*(ppm) | 207Pb\*/206Pb\* | ±% | 207Pb\*/235U | ±% | 206Pb\*/238U | ±% | Errcorr | 206Pb/238U age/Ma | ±% |
| T116-01 | 1.21 | 45 | 22 | 0.50 | 1.60 | 0.0538 | 9.9 | 0.303 | 10 | 0.04090 | 2.7 | 0.261 | 257.4 | ±6.8 |
| T116-02 | 0.28 | 170 | 119 | 0.72 | 6.02 | 0.0493 | 4.6 | 0.279 | 5.1 | 0.04100 | 2.2 | 0.426 | 259.7 | ±5.5 |
| T116-03 | 1.06 | 47 | 24 | 0.53 | 1.63 | 0.0456 | 11 | 0.254 | 11 | 0.04040 | 2.7 | 0.247 | 257.0 | ±6.8 |
| T116-04 | 0.33 | 190 | 109 | 0.59 | 6.63 | 0.0509 | 5.4 | 0.284 | 5.9 | 0.04050 | 2.2 | 0.370 | 256.1 | ±5.5 |
| T116-05 | 2.50 | 171 | 136 | 0.82 | 6.10 | 0.0455 | 15 | 0.254 | 15 | 0.04046 | 2.3 | 0.157 | 257.5 | ±5.6 |
| T116-06 | 2.82 | 190 | 234 | 1.27 | 6.81 | 0.0469 | 14 | 0.262 | 14 | 0.04046 | 2.3 | 0.164 | 257.1 | ±5.5 |
| T116-07 | 0.74 | 53 | 31 | 0.60 | 1.87 | 0.0539 | 10 | 0.305 | 11 | 0.04090 | 2.7 | 0.253 | 257.9 | ±6.8 |
| T116-08 | 0.71 | 56 | 33 | 0.60 | 1.96 | 0.0443 | 12 | 0.246 | 12 | 0.04030 | 3.4 | 0.282 | 256.9 | ±8.7 |
| T116-09 | 0.88 | 87 | 50 | 0.60 | 3.09 | 0.0485 | 5.9 | 0.276 | 6.4 | 0.04124 | 2.4 | 0.375 | 261.5 | ±6.2 |
| T116-10 | 2.43 | 440 | 184 | 0.43 | 16.0 | 0.0476 | 8.4 | 0.270 | 8.7 | 0.04114 | 2.1 | 0.241 | 261.1 | ±5.3 |
| T116-11 | 0.00 | 88 | 96 | 1.13 | 3.11 | 0.0496 | 4.7 | 0.282 | 5.3 | 0.04131 | 2.3 | 0.442 | 261.6 | ±6.0 |
| T116-12 | 0.58 | 107 | 72 | 0.69 | 3.81 | 0.0455 | 6.3 | 0.257 | 6.7 | 0.04106 | 2.3 | 0.342 | 261.3 | ±5.9 |
| Analysis | %206Pbc | U (ppm) | Th (ppm) | 232Th/238U | 206Pb\*(ppm) | 207Pb\*/206Pb\* | ±% | 207Pb\*/235U | ±% | 206Pb\*/238U | ±% | Errcorr | 206Pb/238U age/Ma | ±% |
| B119-01 | 1.26 | 53 | 28 | 0.55 | 1.97 | 0.0485 | 8.0 | 0.284 | 8.4 | 0.04240 | 2.6 | 0.308 | 267.8 | ±6.8 |
| B119-02 | 0.22 | 350 | 351 | 1.04 | 36.2 | 0.0641 | 2.0 | 1.061 | 2.8 | 0.12010 | 2.0 | 0.713 | 731 | ±14 |
| B119-03 | 0.82 | 66 | 41 | 0.64 | 2.29 | 0.0481 | 8.0 | 0.265 | 8.3 | 0.03993 | 2.4 | 0.292 | 252.4 | ±6.0 |
| B119-04 | 0.41 | 241 | 96 | 0.41 | 8.31 | 0.0494 | 4.4 | 0.272 | 4.8 | 0.03995 | 2.1 | 0.430 | 252.5 | ±5.1 |
| B119-05 | 0.28 | 497 | 131 | 0.27 | 17.4 | 0.0511 | 2.8 | 0.2866 | 3.4 | 0.04070 | 2.0 | 0.589 | 257.2 | ±5.1 |
| B119-06 | 2.74 | 80 | 57 | 0.73 | 3.00 | 0.0566 | 14 | 0.331 | 14 | 0.04230 | 2.5 | 0.180 | 267.4 | ±6.6 |
| B119-07 | 0.06 | 411 | 324 | 0.82 | 46.6 | 0.06501 | 1.1 | 1.182 | 2.3 | 0.13180 | 2.0 | 0.877 | 798 | ±15 |
| B119-08 | 2.73 | 89 | 57 | 0.66 | 3.14 | 0.0424 | 20 | 0.233 | 20 | 0.03990 | 2.5 | 0.124 | 252.2 | ±6.2 |
| B119-09 | 0.10 | 282 | 219 | 0.80 | 32.1 | 0.06540 | 1.4 | 1.191 | 2.5 | 0.13210 | 2.0 | 0.816 | 800 | ±15 |
| B119-10 | 0.05 | 1001 | 94 | 0.10 | 108 | 0.06651 | 1.0 | 1.153 | 2.2 | 0.12570 | 2.0 | 0.888 | 763 | ±14 |