Supplementary

Table S1 The AMS measurement data for well H136-2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample Dates  (Year/Month/Day) | 12C Currents (nA) | 14C Total Count | 14C/12C Ratios | Error |
| 2020/11/1 | 36128 | 4032 | 1.040×10-13 | 0.050×10-13 |
| 2020/11/4 | 38379 | 4194 | 1.012×10-13 | 0.045×10-13 |
| 2020/11/6 | 42336 | 3466 | 7.061×10-14 | 0.560×10-14 |
| 2020/11/8 | 37329 | 4422 | 1.114×10-13 | 0.076×10-13 |
| 2020/11/12 | 41854 | 14783 | 3.292×10-13 | 0.064×10-13 |
| 2020/11/18 | 37864 | 9684 | 2.371×10-13 | 0.032×10-13 |
| 2020/11/20 | 25803 | 17898 | 6.042×10-13 | 0.110×10-13 |
| 2020/11/21 | 39019 | 15428 | 3.690×10-13 | 0.053×10-13 |
| 2020/11/22 | 30248 | 11340 | 6.572×10-13 | 0.062×10-13 |
| 2020/11/24 | 28219 | 25068 | 7.882×10-13 | 0.093×10-13 |
| 2020/11/25 | 28191 | 18516 | 5.694×10-13 | 0.075×10-13 |
| 2020/11/27 | 29156 | 15222 | 9.353×10-13 | 0.093×10-13 |
| 2020/11/28 | 26607 | 8727 | 6.363×10-13 | 0.220×10-13 |
| 2020/11/29 | 43070 | 15135 | 7.296×10-13 | 0.028×10-13 |
| 2020/11/30 | 46185 | 18441 | 8.335×10-13 | 0.210×10-13 |
| 2020/12/1 | 46614 | 20910 | 9.404×10-13 | 0.075×10-13 |
| 2020/12/2 | 28890 | 14268 | 9.727×10-13 | 0.069×10-13 |
| 2020/12/4 | 27769 | 15474 | 1.107×10-12 | 0.019×10-12 |
| 2020/12/5 | 45435 | 25002 | 1.161×10-12 | 0.005×10-12 |
| 2020/12/6 | 46716 | 27861 | 1.261×10-12 | 0.005×10-12 |
| 2020/12/7 | 49266 | 30489 | 1.309×10-12 | 0.019×10-12 |
| 2020/12/8 | 45779 | 27480 | 1.269×10-12 | 0.013×10-12 |
| 2020/12/10 | 46232 | 29466 | 1.350×10-12 | 0.004×10-12 |
| 2020/12/18 | 42270 | 33903 | 1.707×10-12 | 0.008×10-12 |
| 2020/12/20 | 41691 | 54906 | 2.836×10-12 | 0.013×10-12 |
| 2020/12/22 | 41694 | 55038 | 2.868×10-12 | 0.012×10-12 |
| 2020/12/24 | 41910 | 37071 | 1.886×10-12 | 0.010×10-12 |
| 2020/12/26 | 46053 | 43896 | 2.035×10-12 | 0.009×10-12 |
| 2020/12/28 | 48364 | 48330 | 2.135×10-12 | 0.016×10-12 |
| 2020/12/30 | 45830 | 46818 | 2.182×10-12 | 0.030×10-12 |
| 2021/1/2 | 36388 | 38226 | 2.245×10-12 | 0.007×10-12 |
| 2021/1/4 | 39287 | 78612 | 2.137×10-12 | 0.012×10-12 |
| 2021/1/6 | 35123 | 34722 | 2.111×10-12 | 0.015×10-12 |
| 2021/1/8 | 28810 | 38248 | 2.126×10-12 | 0.010×10-12 |
| 2021/1/10 | 33743 | 60816 | 3.869×10-12 | 0.012×10-12 |
| 2021/1/11 | 41169 | 76449 | 3.836×10-12 | 0.041×10-12 |
| 2021/1/12 | 38031 | 71523 | 4.038×10-12 | 0.014×10-12 |
| 2021/1/13 | 39769 | 74442 | 3.867×10-12 | 0.030×10-12 |
| 2021/1/14 | 37167 | 65499 | 3.782×10-12 | 0.013×10-12 |
| 2021/1/16 | 42417 | 67398 | 3.429×10-12 | 0.025×10-12 |
| 2021/1/18 | 42217 | 64737 | 3.308×10-12 | 0.030×10-12 |
| 2021/1/20 | 41691 | 54906 | 2.836×10-12 | 0.022×10-12 |
| 2021/1/22 | 41694 | 55038 | 2.868×10-12 | 0.026×10-12 |
| 2021/1/24 | 42777 | 57837 | 2.913×10-12 | 0.032×10-12 |
| 2021/1/26 | 42364 | 54486 | 2.769×10-12 | 0.021×10-12 |
| 2021/1/27 | 44172 | 56975 | 2.738×10-12 | 0.023×10-12 |
| 2021/1/29 | 41330 | 52644 | 2.742×10-12 | 0.007×10-12 |
| 2021/1/31 | 43502 | 38736 | 1.907×10-12 | 0.027×10-12 |
| 2021/2/1 | 41404 | 37413 | 1.936×10-12 | 0.023×10-12 |
| 2021/2/3 | 42523 | 31347 | 1.573×10-12 | 0.017×10-12 |
| 2021/2/5 | 39746 | 28119 | 1.508×10-12 | 0.024×10-12 |
| 2021/2/7 | 42994 | 25827 | 1.276×10-12 | 0.269×10-12 |
| 2021/2/9 | 43386 | 27669 | 1.356×10-12 | 0.018×10-12 |
| 2021/2/11 | 41517 | 21645 | 1.103×10-12 | 0.025×10-12 |
| 2021/2/13 | 42793 | 20574 | 1.014×10-12 | 0.012×10-12 |
| 2021/2/15 | 44687 | 18540 | 8.709×10-13 | 0.160×10-13 |
| 2021/2/17 | 45662 | 18813 | 8.646×10-13 | 0.131×10-13 |
| 2021/2/19 | 40072 | 15453 | 8.071×10-13 | 0.164×10-13 |
| 2021/2/21 | 43619 | 26604 | 1.230×10-12 | 0.026×10-12 |
| 2021/2/23 | 44614 | 31857 | 1.448×10-12 | 0.030×10-12 |
| 2021/2/25 | 44357 | 31710 | 1.450×10-12 | 0.028×10-12 |
| 2021/2/27 | 47027 | 34359 | 1.483×10-12 | 0.019×10-12 |
| 2021/3/1 | 43888 | 34890 | 1.617×10-12 | 0.026×10-12 |
| 2021/3/3 | 46611 | 36765 | 1.604×10-12 | 0.025×10-12 |
| 2021/3/5 | 45945 | 36798 | 1.629×10-12 | 0.019×10-12 |
| 2021/3/13 | 42895 | 28977 | 1.540×10-12 | 0.010×10-12 |
| 2021/3/15 | 42414 | 28530 | 1.533×10-12 | 0.016×10-12 |
| 2021/3/17 | 41660 | 27555 | 1.507×10-12 | 0.009×10-12 |
| 2021/3/19 | 39754 | 26007 | 1.491×10-12 | 0.014×10-12 |
| 2021/3/21 | 41462 | 27450 | 1.509×10-12 | 0.034×10-12 |
| 2021/3/23 | 41828 | 28152 | 1.534×10-12 | 0.028×10-12 |
| 2021/3/25 | 41617 | 27576 | 1.510×10-12 | 0.015×10-12 |
| 2021/3/27 | 41049 | 27219 | 1.511×10-12 | 0.011×10-12 |

Table S2 The AMS measurement data for well H136-8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample Dates  (Year/Month/Day) | 12C Currents (nA) | 14C Total Count | 14C/12C Ratios | Error |
| 2020/11/4 | 39669 | 8016 | 2.076×10-13 | 0.077×10-13 |
| 2020/11/8 | 40326 | 4128 | 9.742×10-14 | 0.513×10-14 |
| 2020/11/28 | 27922 | 3492 | 9.842×10-14 | 0.360×10-14 |
| 2020/11/30 | 28565 | 2244 | 5.126×10-14 | 0.753×10-14 |
| 2020/12/4 | 29732 | 1122 | 9.925×10-15 | 4.079×10-15 |
| 2020/12/6 | 47966 | 12135 | 2.421×10-13 | 0.040×10-13 |
| 2020/12/8 | 40589 | 7011 | 3.422×10-13 | 0.061×10-13 |
| 2020/12/9 | 45507 | 5430 | 9.702×10-14 | 0.269×10-14 |
| 2020/12/10 | 44376 | 5484 | 1.016×10-13 | 0.029×10-13 |
| 2020/12/18 | 45499.5 | 5262 | 9.303×10-14 | 0.325×10-14 |
| 2020/12/20 | 47254 | 4884 | 7.972×10-14 | 0.241×10-14 |
| 2020/12/22 | 48359 | 7560 | 1.371×10-13 | 0.021×10-13 |
| 2020/12/24 | 46229 | 5748 | 1.025×10-13 | 0.038×10-13 |
| 2020/12/26 | 46384 | 10512 | 2.134×10-13 | 0.090×10-13 |
| 2020/12/28 | 47169 | 12102 | 2.458×10-13 | 0.041×10-13 |
| 2020/12/30 | 45023 | 16830 | 3.729×10-13 | 0.063×10-13 |
| 2021/1/2 | 36655 | 13686 | 3.793×10-13 | 0.046×10-13 |
| 2021/1/4 | 32066 | 15816 | 5.087×10-13 | 0.067×10-13 |
| 2021/1/6 | 30809 | 14586 | 4.873×10-13 | 0.065×10-13 |
| 2021/1/8 | 39385 | 20784 | 5.459×10-13 | 0.055×10-13 |
| 2021/1/10 | 34148 | 16992 | 5.134×10-13 | 0.077×10-13 |
| 2021/1/12 | 36220 | 12147 | 7.004×10-13 | 0.109×10-13 |
| 2021/1/14 | 33361 | 12144 | 7.622×10-13 | 0.034×10-13 |
| 2021/1/16 | 45139 | 22368 | 1.047×10-12 | 0.012×10-12 |
| 2021/1/18 | 45470 | 23649 | 1.100×10-12 | 0.015×10-12 |
| 2021/1/20 | 44469 | 24579 | 1.171×10-12 | 0.020×10-12 |
| 2021/1/22 | 43021 | 26211 | 1.294×10-12 | 0.016×10-12 |
| 2021/1/24 | 42739 | 25809 | 1.283×10-12 | 0.022×10-12 |
| 2021/1/26 | 35527 | 32457 | 1.957×10-12 | 0.016×10-12 |
| 2021/1/27 | 44824 | 51285 | 2.460×10-12 | 0.017×10-12 |
| 2021/1/29 | 40754 | 54045 | 2.856×10-12 | 0.014×10-12 |
| 2021/1/31 | 46981 | 40677 | 1.765×10-12 | 0.019×10-12 |
| 2021/2/1 | 45701 | 38541 | 1.718×10-12 | 0.019×10-12 |
| 2021/2/3 | 46686 | 30125 | 1.169×10-12 | 0.014×10-12 |
| 2021/2/5 | 44026 | 26355 | 1.207×10-12 | 0.052×10-12 |
| 2021/2/7 | 46324 | 23883 | 1.033×10-12 | 0.008×10-12 |
| 2021/2/9 | 45538 | 22953 | 1.009×10-12 | 0.008×10-12 |
| 2021/2/11 | 42907 | 16824 | 7.611×10-13 | 0.157×10-13 |
| 2021/2/13 | 43074 | 16557 | 7.590×10-13 | 0.066×10-13 |
| 2021/2/15 | 43260 | 15456 | 7.023×10-13 | 0.099×10-13 |
| 2021/2/19 | 45139 | 13479 | 5.797×10-13 | 0.164×10-13 |
| 2021/2/21 | 42525 | 17562 | 8.187×10-13 | 0.132×10-13 |
| 2021/2/23 | 42092 | 39831 | 1.933×10-12 | 0.021×10-12 |
| 2021/2/25 | 42416 | 39141 | 1.884×10-12 | 0.011×10-12 |
| 2021/2/27 | 42204 | 52170 | 2.538×10-12 | 0.073×10-12 |
| 2021/3/1 | 49470 | 65274 | 2.71273×10-12 | 0.018×10-12 |
| 2021/3/3 | 45352 | 68943 | 3.13206×10-12 | 0.021×10-12 |
| 2021/3/5 | 40883 | 59883 | 3.01435×10-12 | 0.072×10-12 |
| 2021/3/6 | 45076 | 63981 | 2.9216×10-12 | 0.027×10-12 |
| 2021/3/13 | 38889 | 74748 | 4.43222×10-12 | 0.037×10-12 |
| 2021/3/15 | 41312 | 79116 | 4.41598×10-12 | 0.036×10-12 |
| 2021/3/17 | 39006 | 25863 | 1.511×10-12 | 0.021×10-12 |
| 2021/3/19 | 40189 | 26832 | 1.522×10-12 | 0.028×10-12 |
| 2021/3/21 | 40610 | 27057 | 1.519×10-12 | 0.007×10-12 |
| 2021/3/23 | 42243 | 29016 | 1.566×10-12 | 0.010×10-12 |
| 2021/3/25 | 42243 | 28881 | 1.559×10-12 | 0.027×10-12 |
| 2021/3/27 | 41253 | 26817 | 1.481×10-12 | 0.018×10-12 |