

## Data Repository Item 2016277

### Table DR1 – SIMS detrital zircon U-Pb isotopic data and age results

#### Analytical Methods

The zircon grains were analyzed using the sensitive high-resolution ion microprobe (SHRIMP) facilities at The Australian National University following standardized procedures as discussed in Williams (1998, and references therein). The data have been reduced using the SQUID Excel macro (Ludwig, 2000); U-Pb ages are calibrated relative to the FC1 Duluth Gabbro reference zircon (Paces and Miller, 1993). For areas analyzed that are older than ca. 800 Ma (or for very high U zircon areas), correction for common Pb has been made in the normal manner using the measured  $^{204}\text{Pb}/^{206}\text{Pb}$  ratio. For analyses that are younger than ca. 800 Ma, it is difficult to determine the  $^{204}\text{Pb}/^{206}\text{Pb}$  ratio for the ~1 nanogram of material sputtered from the ion microprobe pit. As has been explained in detail elsewhere, for such analyses, the correction for common Pb is made via the “ $^{207}\text{Pb}$  correction” method (see Williams, 1998, and references therein) using the measured  $^{238}\text{U}/^{206}\text{Pb}$  ratio and  $^{207}\text{Pb}/^{206}\text{Pb}$  ratio. For grains that yield ages older than ca. 800 Ma, the  $^{207}\text{Pb}/^{206}\text{Pb}$  age is used. For the younger grains, in general the  $^{206}\text{Pb}/^{238}\text{U}$  age is used, and, as most of the analyses are within uncertainty of the Tera and Wasserburg (1972) concordia, common Pb corrections and assessment of concordance is not an issue. For those that have elevated measured  $^{207}\text{Pb}/^{206}\text{Pb}$  ratios, each analysis has been assessed for inclusion or rejection in terms of the spot location, degree of common Pb correction, and therefore the significance of the  $^{206}\text{Pb}/^{238}\text{U}$  age.

#### References

Ludwig, K.R., 2000, SQUID 1.02, A user’s manual: Berkeley, California, Berkeley Geochronology Center Special Publication no. 2, 19 p.

Paces, J.B., and Miller, J.D., 1993, Precise U-Pb ages of Duluth Complex and related mafic intrusions, northeastern Minnesota: Geochronological insights to physical, petrogenetic, paleomagnetic, and tectonomagmatic process associated with the 1.1 Ga Midcontinent Rift System: *Journal of Geophysical Research*, v. 98, p. 13,997-14,013.

Tera, F., and Wasserburg, G., 1972, U-Th-Pb systematics in three Apollo 14 basalts and the problem of initial Pb in lunar rocks: *Earth and Planetary Science Letters*, v. 14, p. 281-304.

Williams, I.S., 1998, U-Th-Pb Geochronology by ion microprobe, *in* McKibben, M.A., Shanks W.C., III, and Ridley, W.I., eds., *Applications of microanalytical techniques to understanding mineralizing processes: Reviews in Economic Geology*, v. 7, p. 1-35.

**Table DR1. SIMS zircon U-Pb results from the Australian National University**

| 09LR01 - Kinnikinic Quartzite, 12T 0273707E 4885596N NAD 27 |                 |             |      |                             |   |  |   |   |               |  |       |   |       |            |      |    |      |    |    |
|---|-----------------|-------------|------|-----------------------------|---|--|---|---|---------------|--|-------|---|-------|------------|------|----|------|----|----|
| Spot  | Isotopic ratios |             |      |                             |   |  |   |   | Isotopic ages |  |       |   |       |            |      |    |      |    |    |
|   | U<br>(ppm)      | Th<br>(ppm) | Th/U | <sup>206</sup> Pb*<br>(ppm) | <sup>206</sup> Pb/<br><sup>238</sup> U/<br><sup>206</sup> Pb<br>% | <sup>207</sup> Pb/<br><sup>206</sup> Pb<br>% | <sup>207</sup> Pb/<br><sup>235</sup> U<br>% | <sup>206</sup> Pb/<br><sup>238</sup> U<br>% | Corr<br>Coeff | <sup>207</sup> Pb<br><sup>206</sup> Pb<br>(Ma) | ±     | <sup>206</sup> Pb<br><sup>238</sup> U<br>(Ma) | ±     | Disc.<br>% |      |    |      |    |    |
| 49.1  | 317             | 405         | 1.28 | 84                          | 0.07  | 3.225  | 0.037                                       | 0.112                                       | 0.001         | 4.784  | 0.059 | 0.3099  | 0.004 | 0.92       | 1832 | 9  | 1740 | 17 | 5  |
| 65.1  | 80              | 40          | 0.50 | 21                          | 0.00  | 3.225  | 0.045                                       | 0.116                                       | 0.001         | 4.945  | 0.082 | 0.3100  | 0.004 | 0.84       | 1890 | 16 | 1741 | 21 | 8  |
| 10.1  | 121             | 209         | 1.73 | 32                          | 0.07  | 3.219  | 0.040                                       | 0.118                                       | 0.001         | 5.049  | 0.071 | 0.3105  | 0.004 | 0.88       | 1926 | 12 | 1743 | 19 | 9  |
| 31.1  | 59              | 26          | 0.45 | 16                          | 0.08  | 3.190  | 0.048                                       | 0.115                                       | 0.001         | 4.956  | 0.095 | 0.3133  | 0.005 | 0.79       | 1876 | 21 | 1757 | 23 | 6  |
| 54.1  | 317             | 199         | 0.63 | 86                          | 0.02  | 3.169  | 0.036                                       | 0.112                                       | 0.001         | 4.845  | 0.059 | 0.3155  | 0.004 | 0.93       | 1822 | 8  | 1768 | 18 | 3  |
| 1.1   | 231             | 125         | 0.54 | 63                          | 0.03  | 3.147  | 0.037                                       | 0.112                                       | 0.001         | 4.911  | 0.062 | 0.3177  | 0.004 | 0.92       | 1834 | 9  | 1778 | 18 | 3  |
| 2.1   | 49              | 49          | 0.99 | 14                          | 0.22  | 3.101  | 0.047                                       | 0.113                                       | 0.001         | 4.941  | 0.098 | 0.3217  | 0.005 | 0.76       | 1822 | 24 | 1798 | 24 | 1  |
| 58.1  | 261             | 239         | 0.91 | 72                          | 0.02  | 3.103  | 0.038                                       | 0.112                                       | 0.001         | 4.966  | 0.066 | 0.3222  | 0.004 | 0.92       | 1829 | 9  | 1800 | 19 | 2  |
| 19.1  | 325             | 168         | 0.52 | 90                          | 0.02  | 3.092  | 0.044                                       | 0.111                                       | 0.000         | 4.953  | 0.073 | 0.3234  | 0.005 | 0.96       | 1817 | 8  | 1806 | 22 | 1  |
| 46.1  | 233             | 70          | 0.30 | 65                          | 0.03  | 3.081  | 0.037                                       | 0.113                                       | 0.001         | 5.047  | 0.066 | 0.3245  | 0.004 | 0.91       | 1845 | 10 | 1812 | 19 | 2  |
| 15.1  | 75              | 41          | 0.55 | 21                          | 0.12  | 3.074  | 0.042                                       | 0.113                                       | 0.001         | 4.995  | 0.084 | 0.3249  | 0.004 | 0.81       | 1824 | 18 | 1814 | 22 | 1  |
| 3.1   | 92              | 33          | 0.36 | 26                          | 0.07  | 3.069  | 0.041                                       | 0.112                                       | 0.001         | 5.006  | 0.078 | 0.3256  | 0.004 | 0.85       | 1824 | 15 | 1817 | 21 | 0  |
| 57.1  | 77              | 68          | 0.88 | 22                          | 0.10  | 3.068  | 0.043                                       | 0.115                                       | 0.001         | 5.118  | 0.088 | 0.3256  | 0.005 | 0.82       | 1864 | 18 | 1817 | 22 | 3  |
| 67.1  | 146             | 95          | 0.65 | 41                          | 0.08  | 3.044  | 0.038                                       | 0.113                                       | 0.001         | 5.084  | 0.072 | 0.3283  | 0.004 | 0.87       | 1837 | 12 | 1830 | 20 | 0  |
| 7.1   | 31              | 15          | 0.49 | 9                           | 0.33  | 3.024  | 0.052                                       | 0.113                                       | 0.001         | 5.002  | 0.119 | 0.3296  | 0.006 | 0.73       | 1801 | 30 | 1836 | 28 | -2 |
| 25.1  | 365             | 256         | 0.70 | 103                         | 0.03  | 3.031  | 0.037                                       | 0.114                                       | 0.001         | 5.161  | 0.068 | 0.3298  | 0.004 | 0.92       | 1856 | 9  | 1837 | 19 | 1  |
| 26.1  | 283             | 130         | 0.46 | 80                          | 0.04  | 3.020  | 0.035                                       | 0.114                                       | 0.001         | 5.186  | 0.066 | 0.3310  | 0.004 | 0.92       | 1858 | 9  | 1843 | 19 | 1  |
| 69.1  | 64              | 133         | 2.06 | 18                          | 0.10  | 3.014  | 0.048                                       | 0.112                                       | 0.001         | 5.073  | 0.101 | 0.3315  | 0.005 | 0.80       | 1816 | 22 | 1845 | 26 | -2 |
| 44.1  | 86              | 61          | 0.71 | 25                          | 0.03  | 3.009  | 0.044                                       | 0.111                                       | 0.001         | 5.089  | 0.088 | 0.3322  | 0.005 | 0.84       | 1817 | 17 | 1849 | 23 | -2 |
| 13.1  | 663             | 123         | 0.19 | 189                         | 0.01  | 3.005  | 0.032                                       | 0.116                                       | 0.000         | 5.303  | 0.059 | 0.3328  | 0.004 | 0.97       | 1889 | 5  | 1852 | 17 | 2  |
| 64.1  | 108             | 53          | 0.49 | 31                          | 0.13  | 2.984  | 0.039                                       | 0.112                                       | 0.001         | 5.140  | 0.082 | 0.3347  | 0.004 | 0.82       | 1822 | 16 | 1861 | 21 | -2 |
| 21.2  | 91              | 121         | 1.32 | 28                          | 0.07  | 2.972  | 0.105                                       | 0.113                                       | 0.001         | 5.243  | 0.192 | 0.3366  | 0.012 | 0.96       | 1848 | 18 | 1870 | 57 | -1 |
| 48.1  | 59              | 57          | 0.97 | 17                          | 0.08  | 2.968  | 0.048                                       | 0.118                                       | 0.001         | 5.459  | 0.111 | 0.3367  | 0.005 | 0.80       | 1920 | 22 | 1871 | 26 | 3  |
| 52.1  | 68              | 56          | 0.82 | 20                          | 0.13  | 2.955  | 0.047                                       | 0.128                                       | 0.001         | 5.905  | 0.111 | 0.3379  | 0.005 | 0.84       | 2053 | 18 | 1877 | 26 | 9  |
| 68.1  | 293             | 119         | 0.41 | 85                          | 0.03  | 2.957  | 0.035                                       | 0.115                                       | 0.001         | 5.358  | 0.069 | 0.3380  | 0.004 | 0.93       | 1879 | 9  | 1877 | 19 | 0  |
| 28.1  | 270             | 320         | 1.19 | 79                          | <0.01   | 2.945  | 0.035                                       | 0.116                                       | 0.001         | 5.459  | 0.082 | 0.3396  | 0.004 | 0.79       | 1905 | 17 | 1885 | 19 | 1  |
| 20.1  | 75              | 61          | 0.80 | 22                          | 0.11  | 2.939  | 0.041                                       | 0.117                                       | 0.001         | 5.424  | 0.091 | 0.3398  | 0.005 | 0.83       | 1892 | 17 | 1886 | 23 | 0  |
| 16.1  | 138             | 127         | 0.92 | 40                          | 0.03  | 2.932  | 0.036                                       | 0.118                                       | 0.001         | 5.545  | 0.076 | 0.3410  | 0.004 | 0.89       | 1925 | 11 | 1891 | 20 | 2  |
| 59.1  | 58              | 77          | 1.34 | 17                          | 0.26  | 2.906  | 0.046                                       | 0.120                                       | 0.001         | 5.569  | 0.120 | 0.3433  | 0.005 | 0.73       | 1921 | 26 | 1902 | 26 | 1  |
| 70.1  | 76              | 36          | 0.48 | 23                          | 0.11  | 2.891  | 0.046                                       | 0.116                                       | 0.001         | 5.463  | 0.104 | 0.3455  | 0.005 | 0.83       | 1875 | 19 | 1913 | 26 | -2 |
| 23.1  | 89              | 125         | 1.40 | 27                          | 0.11  | 2.878  | 0.040                                       | 0.118                                       | 0.001         | 5.609  | 0.096 | 0.3471  | 0.005 | 0.82       | 1914 | 17 | 1921 | 23 | 0  |
| 45.1  | 224             | 106         | 0.47 | 67                          | 0.01  | 2.877  | 0.034                                       | 0.115                                       | 0.001         | 5.511  | 0.072 | 0.3476  | 0.004 | 0.91       | 1880 | 10 | 1923 | 20 | -2 |
| 14.1  | 105             | 176         | 1.68 | 31                          | 0.03  | 2.875  | 0.052                                       | 0.118                                       | 0.001         | 5.630  | 0.108 | 0.3477  | 0.006 | 0.93       | 1918 | 12 | 1924 | 30 | 0  |
| 55.1  | 261             | 109         | 0.42 | 78                          | 0.02  | 2.862  | 0.033                                       | 0.115                                       | 0.001         | 5.531  | 0.070 | 0.3493  | 0.004 | 0.92       | 1877 | 9  | 1931 | 19 | -3 |
| 62.1  | 108             | 59          | 0.55 | 33                          | 0.06  | 2.840  | 0.038                                       | 0.129                                       | 0.001         | 6.212  | 0.095 | 0.3518  | 0.005 | 0.86       | 2071 | 14 | 1943 | 22 | 6  |
| 21.1  | 82              | 42          | 0.51 | 24                          | <0.01   | 2.820  | 0.039                                       | 0.116                                       | 0.001         | 5.620  | 0.093 | 0.3544  | 0.005 | 0.83       | 1880 | 17 | 1956 | 23 | -4 |
| 5.1   | 104             | 142         | 1.36 | 32                          | 0.05  | 2.759  | 0.037                                       | 0.129                                       | 0.001         | 6.401  | 0.095 | 0.3623  | 0.005 | 0.91       | 2073 | 11 | 1993 | 23 | 4  |
| 30.1  | 430             | 142         | 0.33 | 136                         | <0.01   | 2.711  | 0.030                                       | 0.130                                       | 0.000         | 6.630  | 0.078 | 0.3689  | 0.004 | 0.95       | 2103 | 6  | 2024 | 19 | 4  |
| 11.1  | 67              | 58          | 0.86 | 22                          | 0.04  | 2.682  | 0.038                                       | 0.129                                       | 0.001         | 6.632  | 0.118 | 0.3728  | 0.005 | 0.80       | 2085 | 19 | 2042 | 25 | 2  |
| 24.1  | 71              | 43          | 0.61 | 23                          | 0.07  | 2.654  | 0.040                                       | 0.130                                       | 0.001         | 6.716  | 0.124 | 0.3764  | 0.006 | 0.81       | 2090 | 19 | 2060 | 26 | 1  |
| 12.1  | 106             | 42          | 0.40 | 35                          | 0.06  | 2.640  | 0.034                                       | 0.128                                       | 0.001         | 6.670  | 0.095 | 0.3785  | 0.005 | 0.89       | 2068 | 12 | 2069 | 22 | 0  |
| 66.1  | 250             | 141         | 0.56 | 81                          | 0.06  | 2.637  | 0.030                                       | 0.132                                       | 0.001         | 6.892  | 0.086 | 0.3790  | 0.004 | 0.92       | 2123 | 8  | 2072 | 20 | 2  |
| 27.1  | 67              | 74          | 1.10 | 22                          | 0.10  | 2.627  | 0.039                                       | 0.131                                       | 0.001         | 6.824  | 0.124 | 0.3803  | 0.006 | 0.82       | 2100 | 18 | 2078 | 27 | 1  |
| 60.1  | 153             | 168         | 1.10 | 60                          | <0.01   | 2.202  | 0.029                                       | 0.160                                       | 0.001         | 10.008   | 0.141 | 0.4542  | 0.006 | 0.93       | 2454 | 9  | 2414 | 26 | 2  |
| 61.1  | 196             | 108         | 0.55 | 77                          | 0.02  | 2.197  | 0.028                                       | 0.147                                       | 0.001         | 9.205  | 0.127 | 0.4551  | 0.006 | 0.93       | 2308 | 9  | 2418 | 26 | -5 |
| 17.1  | 340             | 82          | 0.24 | 139                         | 0.01  | 2.103  | 0.023                                       | 0.166                                       | 0.001         | 10.888   | 0.141 | 0.4755  | 0.005 | 0.85       | 2518 | 11 | 2508 | 23 | 0  |
| 18.1  | 445             | 318         | 0.72 | 189                         | 0.01  | 2.019  | 0.022                                       | 0.187                                       | 0.001         | 12.743   | 0.144 | 0.4953  | 0.005 | 0.96       | 2712 | 5  | 2593 | 23 | 4  |
| 6.1   | 77              | 61          | 0.79 | 33                          | 0.04  | 1.986  | 0.026                                       | 0.186                                       | 0.001         | 12.877   | 0.182 | 0.5033  | 0.007 | 0.93       | 2703 | 9  | 2628 | 28 | 3  |
| 4.1   | 137             | 40          | 0.29 | 59                          | 0.05  | 1.984  | 0.025                                       | 0.183                                       | 0.001         | 12.692   | 0.166 | 0.5038  | 0.006 | 0.95       | 2678 | 7  | 2630 | 27 | 2  |
| 29.1  | 338             | 36          | 0.11 | 152                         | 0.13  | 1.909  | 0.022                                       | 0.203                                       | 0.001         | 14.592   | 0.173 | 0.5231  | 0.006 | 0.96       | 2845 | 5  | 2712 | 25 | 5  |
| 47.1  | 108             | 48          | 0.45 | 50                          | 0.04  | 1.848  | 0.026                                       | 0.184                                       | 0.002         | 13.682   | 0.250 | 0.5408  | 0.008 | 0.78       | 2685 | 19 | 2787 | 32 | -4 |
| 63.1  | 48              | 65          | 1.34 | 23                          | 0.11  | 1.793  | 0.028                                       | 0.209                                       | 0.001         | 15.963   | 0.276 | 0.5570  | 0.009 | 0.90       | 2889 | 12 | 2854 | 36 | 1  |
| Rejected analyses   |                 |             |      |                             |   |  |   |   |               |  |       |   |       |            |      |    |      |    |    |
| 56.1  | 1728            | 1715        | 0.99 | 176                         | 1.00  | 8.440  | 0.090                                       | 0.0997                                      | 0.001         | 1.613  | 0.025 | 0.1173  | 0.001 | 0.70       | 1619 | 20 | 715  | 7  | 56 |
| 38.1  | 69              | 51          | 0.74 | 11                          | 0.19  | 5.230  | 0.092                                       | 0.1153                                      | 0.002         | 3.035  | 0.081 | 0.1908  | 0.003 | 0.66       | 1885 | 36 | 1126 | 18 | 40 |

|      |     |     |      |    |       |       |       |        |       |       |       |        |       |      |      |    |      |    |    |
|------|-----|-----|------|----|-------|-------|-------|--------|-------|-------|-------|--------|-------|------|------|----|------|----|----|
| 40.1 | 215 | 221 | 1.03 | 41 | 0.07  | 4.532 | 0.057 | 0.1177 | 0.001 | 3.577 | 0.054 | 0.2205 | 0.003 | 0.83 | 1921 | 15 | 1284 | 15 | 33 |
| 35.1 | 286 | 218 | 0.76 | 56 | <0.01 | 4.387 | 0.052 | 0.1115 | 0.001 | 3.505 | 0.048 | 0.2279 | 0.003 | 0.88 | 1825 | 12 | 1324 | 14 | 27 |
| 41.1 | 82  | 89  | 1.08 | 17 | 0.18  | 4.259 | 0.071 | 0.1140 | 0.002 | 3.685 | 0.086 | 0.2344 | 0.004 | 0.71 | 1864 | 30 | 1357 | 20 | 27 |
| 50.1 | 205 | 50  | 0.25 | 42 | 0.07  | 4.228 | 0.053 | 0.1143 | 0.001 | 3.725 | 0.057 | 0.2363 | 0.003 | 0.83 | 1869 | 15 | 1368 | 16 | 27 |
| 33.1 | 86  | 56  | 0.65 | 18 | 0.05  | 4.113 | 0.061 | 0.1166 | 0.001 | 3.906 | 0.073 | 0.2430 | 0.004 | 0.80 | 1904 | 20 | 1402 | 19 | 26 |
| 34.1 | 242 | 100 | 0.41 | 52 | 0.01  | 4.022 | 0.048 | 0.1122 | 0.001 | 3.846 | 0.053 | 0.2486 | 0.003 | 0.88 | 1836 | 12 | 1431 | 15 | 22 |
| 42.1 | 194 | 131 | 0.67 | 42 | 0.05  | 3.968 | 0.050 | 0.1121 | 0.001 | 3.895 | 0.058 | 0.2519 | 0.003 | 0.85 | 1834 | 14 | 1448 | 16 | 21 |
| 37.1 | 148 | 225 | 1.51 | 33 | 0.12  | 3.838 | 0.050 | 0.1109 | 0.001 | 3.979 | 0.071 | 0.2602 | 0.003 | 0.73 | 1814 | 22 | 1491 | 18 | 18 |
| 32.1 | 121 | 31  | 0.26 | 28 | 0.05  | 3.762 | 0.050 | 0.1157 | 0.001 | 4.240 | 0.067 | 0.2657 | 0.004 | 0.83 | 1891 | 16 | 1519 | 18 | 20 |
| 39.1 | 71  | 68  | 0.95 | 16 | 0.25  | 3.718 | 0.056 | 0.1122 | 0.002 | 4.152 | 0.089 | 0.2683 | 0.004 | 0.71 | 1836 | 28 | 1532 | 21 | 17 |
| 43.1 | 52  | 65  | 1.23 | 12 | 0.40  | 3.696 | 0.065 | 0.1184 | 0.002 | 4.399 | 0.116 | 0.2695 | 0.005 | 0.67 | 1932 | 35 | 1538 | 24 | 20 |
| 53.1 | 63  | 33  | 0.52 | 15 | <0.01 | 3.668 | 0.060 | 0.1129 | 0.001 | 4.242 | 0.085 | 0.2726 | 0.004 | 0.82 | 1846 | 21 | 1554 | 23 | 16 |
| 36.1 | 106 | 119 | 1.12 | 26 | <0.01 | 3.552 | 0.049 | 0.1179 | 0.001 | 4.578 | 0.077 | 0.2816 | 0.004 | 0.83 | 1924 | 17 | 1600 | 20 | 17 |
| 9.1  | 181 | 147 | 0.81 | 45 | 0.02  | 3.458 | 0.041 | 0.1124 | 0.001 | 4.482 | 0.059 | 0.2891 | 0.003 | 0.89 | 1839 | 11 | 1637 | 17 | 11 |
| 51.1 | 364 | 226 | 0.62 | 92 | 0.04  | 3.397 | 0.038 | 0.1278 | 0.001 | 5.186 | 0.065 | 0.2942 | 0.003 | 0.91 | 2068 | 9  | 1663 | 17 | 20 |
| 8.1  | 64  | 80  | 1.24 | 17 | <0.01 | 3.191 | 0.045 | 0.1204 | 0.001 | 5.204 | 0.086 | 0.3134 | 0.004 | 0.86 | 1962 | 15 | 1757 | 22 | 10 |

40JMP94 - Copper Basin Gp., Argosy Creek Fm., Scorpion Mountain Mbr., 12T 268654E 4833572N NAD 27

| Spot | U<br>(ppm) | Th<br>(ppm) | Th/U | Isotopic ratios    |                     |  |       | Isotopic ages                          |       |  |       |  |       |               |                             |                             |            |    |    |
|------|------------|-------------|------|--------------------|---------------------|--|-------|--|-------|--|-------|--|-------|---------------|-----------------------------|-----------------------------|------------|----|----|
|      |            |             |      | <sup>206</sup> Pb* | f <sup>206</sup> Pb | <sup>206</sup> U/<br><sup>238</sup> Pb | % ±   | <sup>207</sup> Pb/<br><sup>235</sup> U | % ±   | <sup>207</sup> Pb/<br><sup>235</sup> U | % ±   | <sup>206</sup> Pb/<br><sup>238</sup> U | % ±   | Corr<br>Coeff | <sup>207</sup> Pb ±<br>(Ma) | <sup>206</sup> Pb ±<br>(Ma) | Disc.<br>% |    |    |
| 4.1  | 114        | 107         | 0.94 | 31.5               | 0.46                | 3.098                                  | 0.060 | 0.1080                                 | 0.003 | 4.782                                  | 0.149 | 0.3213                                 | 0.006 | 0.62          | 1765                        | 45                          | 1796       | 31 | -2 |
| 8.1  | 199        | 89          | 0.44 | 53.5               | 0.34                | 3.204                                  | 0.052 | 0.1098                                 | 0.002 | 4.709                                  | 0.109 | 0.3111                                 | 0.005 | 0.70          | 1796                        | 30                          | 1746       | 25 | 3  |
| 13.1 | 466        | 376         | 0.81 | 127.1              | 0.12                | 3.150                                  | 0.041 | 0.1099                                 | 0.001 | 4.804                                  | 0.078 | 0.3171                                 | 0.004 | 0.80          | 1797                        | 18                          | 1776       | 20 | 1  |
| 18.1 | 120        | 64          | 0.53 | 32.7               | 0.50                | 3.160                                  | 0.061 | 0.1106                                 | 0.003 | 4.800                                  | 0.151 | 0.3149                                 | 0.006 | 0.61          | 1809                        | 45                          | 1765       | 30 | 2  |
| 12.1 | 105        | 90          | 0.86 | 28.4               | 0.33                | 3.173                                  | 0.065 | 0.1111                                 | 0.002 | 4.810                                  | 0.145 | 0.3141                                 | 0.006 | 0.68          | 1817                        | 40                          | 1761       | 32 | 3  |
| 41.1 | 156        | 68          | 0.44 | 44.8               | 0.16                | 2.984                                  | 0.040 | 0.1115                                 | 0.001 | 5.142                                  | 0.092 | 0.3346                                 | 0.005 | 0.76          | 1823                        | 21                          | 1861       | 22 | -2 |
| 39.1 | 84         | 50          | 0.59 | 23.8               | 0.30                | 3.029                                  | 0.048 | 0.1124                                 | 0.002 | 5.101                                  | 0.121 | 0.3292                                 | 0.005 | 0.67          | 1838                        | 32                          | 1834       | 25 | 0  |
| 47.1 | 250        | 134         | 0.54 | 72.9               | 0.09                | 2.945                                  | 0.037 | 0.1124                                 | 0.001 | 5.260                                  | 0.074 | 0.3393                                 | 0.004 | 0.88          | 1839                        | 12                          | 1883       | 20 | -2 |
| 6.1  | 181        | 109         | 0.60 | 51.6               | 0.36                | 3.014                                  | 0.049 | 0.1110                                 | 0.003 | 5.058                                  | 0.181 | 0.3306                                 | 0.006 | 0.84          | 1815                        | 41                          | 1841       | 29 | -1 |
| 43.1 | 59         | 43          | 0.73 | 16.8               | 0.17                | 3.035                                  | 0.049 | 0.1128                                 | 0.002 | 5.117                                  | 0.112 | 0.3290                                 | 0.005 | 0.74          | 1845                        | 27                          | 1833       | 26 | 1  |
| 57.1 | 110        | 71          | 0.65 | 33.1               | <0.01               | 2.846                                  | 0.043 | 0.1132                                 | 0.002 | 5.490                                  | 0.177 | 0.3518                                 | 0.006 | 0.86          | 1851                        | 36                          | 1943       | 28 | -5 |
| 32.1 | 24         | 31          | 1.30 | 6.6                | 0.35                | 3.108                                  | 0.064 | 0.1136                                 | 0.003 | 5.020                                  | 0.178 | 0.3206                                 | 0.007 | 0.59          | 1857                        | 52                          | 1793       | 33 | 3  |
| 34.1 | 148        | 1           | 0.01 | 44.2               | 0.07                | 2.880                                  | 0.037 | 0.1137                                 | 0.001 | 5.437                                  | 0.084 | 0.3469                                 | 0.004 | 0.83          | 1859                        | 16                          | 1920       | 21 | -3 |
| 58.1 | 127        | 116         | 0.91 | 35.1               | 0.14                | 3.117                                  | 0.041 | 0.1139                                 | 0.001 | 5.034                                  | 0.080 | 0.3204                                 | 0.004 | 0.83          | 1863                        | 16                          | 1792       | 21 | 4  |
| 15.1 | 43         | 66          | 1.54 | 12.2               | 0.18                | 3.015                                  | 0.087 | 0.1140                                 | 0.003 | 5.204                                  | 0.209 | 0.3311                                 | 0.010 | 0.72          | 1864                        | 50                          | 1844       | 46 | 1  |
| 37.1 | 35         | 21          | 0.58 | 10.3               | 1.58                | 2.933                                  | 0.055 | 0.1141                                 | 0.004 | 5.327                                  | 0.242 | 0.3386                                 | 0.007 | 0.80          | 1866                        | 57                          | 1880       | 34 | -1 |
| 53.1 | 59         | 36          | 0.62 | 17.2               | <0.01               | 2.927                                  | 0.045 | 0.1143                                 | 0.001 | 5.389                                  | 0.103 | 0.3418                                 | 0.005 | 0.81          | 1869                        | 20                          | 1895       | 25 | -1 |
| 46.1 | 96         | 52          | 0.54 | 28.3               | <0.01               | 2.920                                  | 0.040 | 0.1146                                 | 0.001 | 5.416                                  | 0.089 | 0.3427                                 | 0.005 | 0.82          | 1874                        | 17                          | 1900       | 22 | -1 |
| 42.1 | 160        | 107         | 0.67 | 45.9               | <0.01               | 2.999                                  | 0.038 | 0.1147                                 | 0.001 | 5.276                                  | 0.075 | 0.3335                                 | 0.004 | 0.89          | 1876                        | 12                          | 1855       | 20 | 1  |
| 11.1 | 174        | 58          | 0.34 | 48.4               | 0.30                | 3.078                                  | 0.052 | 0.1148                                 | 0.002 | 5.127                                  | 0.123 | 0.3239                                 | 0.005 | 0.70          | 1877                        | 31                          | 1809       | 27 | 4  |
| 45.1 | 54         | 61          | 1.12 | 15.1               | <0.01               | 3.096                                  | 0.063 | 0.1164                                 | 0.002 | 5.189                                  | 0.133 | 0.3233                                 | 0.007 | 0.80          | 1902                        | 28                          | 1806       | 32 | 5  |
| 54.1 | 156        | 55          | 0.35 | 44.2               | 0.02                | 3.025                                  | 0.038 | 0.1165                                 | 0.001 | 5.311                                  | 0.076 | 0.3305                                 | 0.004 | 0.89          | 1904                        | 12                          | 1841       | 20 | 3  |
| 5.1  | 300        | 297         | 0.99 | 86.0               | 0.20                | 2.998                                  | 0.043 | 0.1176                                 | 0.001 | 5.396                                  | 0.099 | 0.3328                                 | 0.005 | 0.79          | 1920                        | 20                          | 1852       | 23 | 4  |
| 3.1  | 66         | 36          | 0.54 | 18.6               | 0.65                | 3.067                                  | 0.074 | 0.1177                                 | 0.004 | 5.257                                  | 0.220 | 0.3239                                 | 0.008 | 0.583         | 1922                        | 61                          | 1809       | 39 | 6  |
| 59.1 | 28         | 62          | 2.25 | 8.0                | 0.62                | 2.946                                  | 0.060 | 0.1182                                 | 0.005 | 5.497                                  | 0.246 | 0.3373                                 | 0.007 | 0.465         | 1929                        | 71                          | 1874       | 34 | 3  |
| 60.1 | 57         | 42          | 0.73 | 15.6               | <0.01               | 3.134                                  | 0.048 | 0.1197                                 | 0.002 | 5.283                                  | 0.128 | 0.3200                                 | 0.005 | 0.644         | 1952                        | 33                          | 1790       | 24 | 8  |
| 50.1 | 97         | 66          | 0.68 | 29.5               | 0.53                | 2.814                                  | 0.039 | 0.1199                                 | 0.002 | 5.886                                  | 0.175 | 0.3561                                 | 0.005 | 0.856         | 1954                        | 33                          | 1964       | 26 | 0  |
| 35.1 | 61         | 37          | 0.60 | 21.2               | 0.02                | 2.476                                  | 0.041 | 0.1291                                 | 0.001 | 7.186                                  | 0.138 | 0.4038                                 | 0.007 | 0.867         | 2085                        | 17                          | 2187       | 31 | -5 |
| 40.1 | 66         | 32          | 0.49 | 22.3               | 0.37                | 2.549                                  | 0.037 | 0.1294                                 | 0.002 | 6.994                                  | 0.185 | 0.3922                                 | 0.006 | 0.857         | 2089                        | 27                          | 2133       | 28 | -2 |
| 16.1 | 303        | 112         | 0.37 | 94.0               | 0.16                | 2.770                                  | 0.039 | 0.1295                                 | 0.001 | 6.434                                  | 0.111 | 0.3604                                 | 0.005 | 0.821         | 2091                        | 17                          | 1984       | 24 | 5  |
| 48.1 | 123        | 54          | 0.44 | 41.7               | <0.01               | 2.532                                  | 0.036 | 0.1299                                 | 0.001 | 7.074                                  | 0.112 | 0.3951                                 | 0.006 | 0.896         | 2096                        | 12                          | 2146       | 26 | -2 |
| 38.1 | 138        | 197         | 1.42 | 46.5               | 0.24                | 2.553                                  | 0.036 | 0.1302                                 | 0.001 | 7.017                                  | 0.123 | 0.3908                                 | 0.006 | 0.813         | 2101                        | 18                          | 2126       | 26 | -1 |
| 2.1  | 161        | 77          | 0.47 | 48.7               | 0.44                | 2.847                                  | 0.051 | 0.1304                                 | 0.002 | 6.285                                  | 0.156 | 0.3497                                 | 0.006 | 0.729         | 2103                        | 30                          | 1933       | 30 | 8  |
| 10.1 | 231        | 79          | 0.34 | 76.1               | 0.30                | 2.608                                  | 0.042 | 0.1214                                 | 0.004 | 6.458                                  | 0.277 | 0.3857                                 | 0.007 | 0.684         | 1977                        | 60                          | 2103       | 31 | -6 |
| 7.1  | 41         | 27          | 0.66 | 13.3               | 1.78                | 2.653                                  | 0.076 | 0.1315                                 | 0.005 | 6.788                                  | 0.429 | 0.3743                                 | 0.012 | 0.835         | 2118                        | 71                          | 2050       | 55 | 3  |
| 61.1 | 213        | 77          | 0.36 | 75.3               | 0.16                | 2.427                                  | 0.031 | 0.1437                                 | 0.001 | 8.152                                  | 0.114 | 0.4114                                 | 0.005 | 0.905         | 2272                        | 10                          | 2221       | 24 | 2  |
| 33.1 | 160        | 121         | 0.76 | 60.8               | 0.01                | 2.259                                  | 0.037 | 0.1473                                 | 0.001 | 8.989                                  | 0.158 | 0.4427                                 | 0.007 | 0.941         | 2314                        | 10                          | 2363       | 33 | -2 |
| 52.1 | 110        | 51          | 0.46 | 41.8               | 0.08                | 2.252                                  | 0.030 | 0.1491                                 | 0.001 | 9.120                                  | 0.137 | 0.4437                                 | 0.006 | 0.887         | 2335                        | 12                          | 2367       | 26 | -1 |
| 36.1 | 83         | 69          | 0.82 | 37.7               | 0.06                | 1.899                                  | 0.027 | 0.1736                                 | 0.001 | 12.600                                 | 0.197 | 0.5263                                 | 0.007 | 0.896         | 2593                        | 12                          | 2726       | 31 | -5 |
| 17.1 | 102        | 116         | 1.14 | 45.4               | 0.26                | 1.922                                  | 0.038 | 0.1788                                 | 0.002 | 12.792                                 | 0.296 | 0.5189                                 | 0.010 | 0.855         | 2642                        | 20                          | 2695       | 44 | -2 |
| 49.1 | 98         | 103         | 1.05 | 44.7               | <0.01               | 1.877                                  | 0.026 | 0.1872                                 | 0.001 | 13.752                                 | 0.206 | 0.5327                                 | 0.007 | 0.920         | 2718                        | 10                          | 2753       | 31 | -1 |

Rejected analyses

|      |     |     |      |      |       |       |       |        |       |       |       |        |       |      |      |    |      |    |     |
|------|-----|-----|------|------|-------|-------|-------|--------|-------|-------|-------|--------|-------|------|------|----|------|----|-----|
| 14.1 | 78  | 43  | 0.55 | 23.5 | 0.59  | 2.837 | 0.066 | 0.1079 | 0.004 | 5.215 | 0.268 | 0.3506 | 0.009 | 0.82 | 1764 | 62 | 1937 | 42 | -10 |
| 44.1 | 410 | 188 | 0.46 | 92.6 | <0.01 | 3.807 | 0.050 | 0.1099 | 0.001 | 3.979 | 0.059 | 0.2627 | 0.003 | 0.89 | 1797 | 12 | 1504 | 18 | 16  |
| 1.1  | 27  | 24  | 0.90 | 7.6  | 2.42  | 3.070 | 0.111 | 0.1113 | 0.008 | 4.970 | 0.520 | 0.3237 | 0.013 | 0.83 | 1808 | 65 | 1808 | 65 | 1   |
| 9.1  | 20  | 29  | 1.49 | 5.8  | 3.74  | 2.869 | 0.116 | 0.1217 | 0.014 | 5.820 | 0.923 | 0.3469 | 0.018 | 0.86 | 1920 | 85 | 1920 | 85 | 3   |
| 55.1 | 212 | 171 | 0.81 | 60.8 | 0.16  | 2.991 | 0.043 | 0.1288 | 0.001 | 5.929 | 0.101 | 0.3338 | 0.005 | 0.85 | 2082 | 16 | 1857 | 23 | 11  |
| 31.1 | 39  | 43  | 1.10 | 10.8 | 0.58  | 3.139 | 0.059 | 0.1441 | 0.005 | 6.294 | 0.254 | 0.3168 | 0.006 | 0.47 | 2277 | 61 | 1774 | 30 | 22  |
| 56.1 | 142 | 47  | 0.33 | 43.7 | 0.20  | 2.799 | 0.038 | 0.1824 | 0.002 | 8.965 | 0.146 | 0.3565 | 0.005 | 0.84 | 2675 | 15 | 1966 | 23 | 27  |

10JMP94 - Copper Basin Gp., Argosy Creek Fm., Scorpion Mountain Mbr., 12T 268654E 4833572N NAD 27

| Spot | U<br>(ppm) | Th<br>(ppm) | Th/U | Isotopic ratios                     |                                     |                                     |                                     |                                     |                                     | Isotopic ages |                     |                     |                     |                     |      | Disc. |      |    |    |
|------|------------|-------------|------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------|---------------------|---------------------|---------------------|---------------------|------|-------|------|----|----|
|      |            |             |      | <sup>206</sup> Pb/ <sup>238</sup> U | <sup>207</sup> Pb/ <sup>235</sup> U | <sup>206</sup> Pb/ <sup>238</sup> U | <sup>207</sup> Pb/ <sup>235</sup> U | <sup>206</sup> Pb/ <sup>238</sup> U | <sup>207</sup> Pb/ <sup>235</sup> U | Corr          | <sup>206</sup> Pb ± | <sup>207</sup> Pb ± | <sup>206</sup> Pb ± | <sup>207</sup> Pb ± |      |       |      |    |    |
| 32.1 | 219        | 93          | 0.43 | 47.2                                | 0.09                                | 3.980                               | 0.050                               | 0.0924                              | 0.001                               | 3.200         | 0.048               | 0.2512              | 0.003               | 0.84                | 1475 | 15    | 1445 | 16 | 2  |
| 33.1 | 39         | 56          | 1.45 | 10.6                                | 0.91                                | 3.140                               | 0.060                               | 0.1084                              | 0.004                               | 4.725         | 0.200               | 0.3160              | 0.006               | 0.45                | 1773 | 69    | 1770 | 30 | 0  |
| 2.1  | 47         | 1           | 0.03 | 13.2                                | 0.98                                | 3.072                               | 0.087                               | 0.1077                              | 0.003                               | 4.788         | 0.201               | 0.3225              | 0.009               | 0.76                | 1760 | 50    | 1802 | 45 | -2 |
| 3.1  | 116        | 66          | 0.57 | 32.4                                | 0.61                                | 3.080                               | 0.061                               | 0.1100                              | 0.003                               | 4.894         | 0.158               | 0.3227              | 0.006               | 0.62                | 1799 | 46    | 1803 | 31 | 0  |
| 44.1 | 221        | 79          | 0.36 | 56.7                                | 0.11                                | 3.350                               | 0.040                               | 0.1105                              | 0.001                               | 4.551         | 0.064               | 0.2986              | 0.004               | 0.87                | 1808 | 13    | 1684 | 18 | 7  |
| 31.1 | 55         | 50          | 0.91 | 16.0                                | 0.49                                | 2.960                               | 0.050                               | 0.1108                              | 0.003                               | 5.133         | 0.155               | 0.3361              | 0.005               | 0.54                | 1812 | 46    | 1868 | 26 | -3 |
| 7.1  | 74         | 75          | 1.01 | 20.5                                | 0.84                                | 3.109                               | 0.073                               | 0.1112                              | 0.005                               | 4.890         | 0.247               | 0.3190              | 0.008               | 0.47                | 1819 | 81    | 1785 | 37 | 2  |
| 15.1 | 57         | 78          | 1.37 | 16.2                                | 0.90                                | 3.036                               | 0.078                               | 0.1117                              | 0.005                               | 5.026         | 0.265               | 0.3264              | 0.009               | 0.50                | 1827 | 83    | 1821 | 41 | 0  |
| 52.1 | 84         | 76          | 0.91 | 23.5                                | 0.00                                | 3.060                               | 0.040                               | 0.1116                              | 0.001                               | 5.024         | 0.086               | 0.3264              | 0.005               | 0.84                | 1826 | 17    | 1821 | 23 | 0  |
| 52.2 | 95         | 44          | 0.46 | 27.7                                | 0.23                                | 2.940                               | 0.040                               | 0.1114                              | 0.002                               | 5.216         | 0.107               | 0.3394              | 0.005               | 0.71                | 1823 | 26    | 1884 | 24 | -3 |
| 9.1  | 50         | 40          | 0.80 | 13.6                                | 1.30                                | 3.133                               | 0.087                               | 0.1115                              | 0.006                               | 4.845         | 0.280               | 0.3150              | 0.009               | 0.49                | 1825 | 91    | 1765 | 44 | 3  |
| 58.1 | 95         | 39          | 0.41 | 26.0                                | 0.15                                | 3.140                               | 0.050                               | 0.1118                              | 0.001                               | 4.893         | 0.093               | 0.3175              | 0.005               | 0.76                | 1828 | 22    | 1778 | 22 | 3  |
| 57.1 | 83         | 80          | 0.97 | 21.0                                | 0.16                                | 3.390                               | 0.050                               | 0.1118                              | 0.001                               | 4.547         | 0.092               | 0.2949              | 0.005               | 0.76                | 1829 | 24    | 1666 | 23 | 9  |
| 59.1 | 134        | 103         | 0.77 | 37.7                                | 0.03                                | 3.040                               | 0.040                               | 0.1111                              | 0.001                               | 5.030         | 0.076               | 0.3283              | 0.004               | 0.87                | 1818 | 13    | 1830 | 21 | -1 |
| 42.1 | 179        | 145         | 0.81 | 51.1                                | 0.08                                | 3.020                               | 0.040                               | 0.1122                              | 0.001                               | 5.122         | 0.077               | 0.3311              | 0.004               | 0.83                | 1835 | 15    | 1844 | 20 | 0  |
| 12.1 | 121        | 122         | 1.01 | 34.4                                | 0.32                                | 3.023                               | 0.058                               | 0.1108                              | 0.002                               | 5.039         | 0.149               | 0.3298              | 0.006               | 0.65                | 1813 | 41    | 1837 | 31 | -1 |
| 49.1 | 139        | 57          | 0.41 | 40.1                                | 0.11                                | 2.980                               | 0.040                               | 0.1126                              | 0.001                               | 5.197         | 0.088               | 0.3347              | 0.005               | 0.84                | 1842 | 17    | 1861 | 23 | -1 |
| 18.1 | 127        | 67          | 0.53 | 34.8                                | 0.34                                | 3.123                               | 0.058                               | 0.1127                              | 0.002                               | 4.960         | 0.139               | 0.3192              | 0.006               | 0.67                | 1843 | 38    | 1786 | 29 | 3  |
| 37.1 | 55         | 43          | 0.78 | 15.2                                | 0.33                                | 3.080                               | 0.050                               | 0.1133                              | 0.002                               | 5.057         | 0.131               | 0.3238              | 0.005               | 0.61                | 1853 | 37    | 1808 | 25 | 2  |
| 1.1  | 80         | 64          | 0.81 | 22.9                                | 1.44                                | 2.991                               | 0.069                               | 0.1112                              | 0.005                               | 5.106         | 0.307               | 0.3330              | 0.009               | 0.83                | 1819 | 75    | 1853 | 41 | -2 |
| 50.1 | 226        | 419         | 1.86 | 65.3                                | 0.23                                | 2.970                               | 0.040                               | 0.1135                              | 0.002                               | 5.263         | 0.130               | 0.3363              | 0.005               | 0.58                | 1856 | 36    | 1869 | 23 | -1 |
| 10.1 | 86         | 144         | 1.67 | 23.2                                | 0.45                                | 3.193                               | 0.071                               | 0.1138                              | 0.003                               | 4.891         | 0.175               | 0.3118              | 0.007               | 0.63                | 1861 | 50    | 1750 | 34 | 6  |
| 40.1 | 65         | 117         | 1.80 | 18.5                                | 0.08                                | 3.030                               | 0.050                               | 0.1140                              | 0.001                               | 5.186         | 0.097               | 0.3299              | 0.005               | 0.83                | 1864 | 19    | 1838 | 25 | 1  |
| 11.1 | 101        | 51          | 0.51 | 29.2                                | 0.92                                | 2.966                               | 0.060                               | 0.1103                              | 0.003                               | 5.114         | 0.213               | 0.3361              | 0.007               | 0.83                | 1805 | 49    | 1868 | 35 | -3 |
| 34.1 | 87         | 20          | 0.23 | 24.8                                | 0.29                                | 3.000                               | 0.040                               | 0.1144                              | 0.002                               | 5.241         | 0.127               | 0.3322              | 0.005               | 0.58                | 1871 | 35    | 1849 | 23 | 1  |
| 54.1 | 30         | 15          | 0.49 | 8.9                                 | 0.32                                | 2.930                               | 0.060                               | 0.1144                              | 0.003                               | 5.360         | 0.166               | 0.3397              | 0.007               | 0.63                | 1871 | 43    | 1885 | 32 | -1 |
| 48.1 | 58         | 40          | 0.70 | 16.5                                | 0.31                                | 3.000                               | 0.050                               | 0.1145                              | 0.002                               | 5.248         | 0.135               | 0.3325              | 0.005               | 0.64                | 1872 | 36    | 1850 | 26 | 1  |
| 38.1 | 114        | 113         | 0.99 | 33.4                                | 0.19                                | 2.940                               | 0.040                               | 0.1146                              | 0.001                               | 5.358         | 0.102               | 0.3390              | 0.005               | 0.75                | 1874 | 23    | 1882 | 23 | 0  |
| 41.1 | 74         | 38          | 0.52 | 21.1                                | 0.50                                | 2.990                               | 0.040                               | 0.1154                              | 0.002                               | 5.322         | 0.150               | 0.3345              | 0.005               | 0.84                | 1886 | 31    | 1860 | 25 | 1  |
| 6.1  | 62         | 42          | 0.69 | 17.1                                | 2.17                                | 3.085                               | 0.077                               | 0.1158                              | 0.005                               | 5.143         | 0.308               | 0.3222              | 0.009               | 0.83                | 1892 | 72    | 1800 | 44 | 5  |
| 4.2  | 227        | 169         | 0.75 | 67.0                                | 0.31                                | 2.912                               | 0.045                               | 0.1164                              | 0.002                               | 5.493         | 0.120               | 0.3423              | 0.005               | 0.72                | 1902 | 27    | 1898 | 26 | 0  |
| 60.1 | 36         | 26          | 0.73 | 10.6                                | 0.76                                | 2.890                               | 0.060                               | 0.1133                              | 0.005                               | 5.412         | 0.301               | 0.3464              | 0.008               | 0.75                | 1853 | 75    | 1918 | 37 | -3 |
| 16.1 | 138        | 251         | 1.81 | 42.1                                | 0.77                                | 2.820                               | 0.050                               | 0.1155                              | 0.003                               | 5.604         | 0.168               | 0.3519              | 0.006               | 0.60                | 1888 | 43    | 1944 | 30 | -3 |
| 35.1 | 82         | 34          | 0.42 | 27.6                                | 0.24                                | 2.550                               | 0.040                               | 0.1281                              | 0.002                               | 6.922         | 0.166               | 0.3920              | 0.006               | 0.87                | 2071 | 23    | 2132 | 27 | -3 |
| 36.1 | 179        | 64          | 0.36 | 60.2                                | 0.06                                | 2.560                               | 0.030                               | 0.1289                              | 0.001                               | 6.945         | 0.138               | 0.3908              | 0.005               | 0.91                | 2083 | 16    | 2127 | 25 | -2 |
| 56.1 | 276        | 137         | 0.50 | 95.6                                | 0.45                                | 2.480                               | 0.030                               | 0.1396                              | 0.001                               | 7.734         | 0.115               | 0.4018              | 0.005               | 0.86                | 2222 | 13    | 2177 | 24 | 2  |
| 43.1 | 189        | 118         | 0.62 | 69.4                                | 0.09                                | 2.340                               | 0.030                               | 0.1468                              | 0.001                               | 8.649         | 0.118               | 0.4274              | 0.005               | 0.91                | 2309 | 10    | 2294 | 24 | 1  |
| 14.1 | 54         | 25          | 0.46 | 22.4                                | 1.40                                | 2.052                               | 0.052                               | 0.1674                              | 0.005                               | 11.088        | 0.453               | 0.4805              | 0.013               | 0.64                | 2532 | 53    | 2529 | 55 | 0  |
| 45.1 | 103        | 81          | 0.79 | 43.7                                | 0.12                                | 2.020                               | 0.030                               | 0.1715                              | 0.001                               | 11.719        | 0.175               | 0.4955              | 0.007               | 0.89                | 2573 | 11    | 2594 | 28 | -1 |
| 21.1 | 38         | 47          | 1.25 | 17.2                                | 0.98                                | 1.884                               | 0.056                               | 0.1877                              | 0.006                               | 13.599        | 0.594               | 0.5256              | 0.016               | 0.70                | 2722 | 51    | 2723 | 68 | 0  |
| 17.1 | 41         | 34          | 0.82 | 12.0                                | 2.79                                | 2.970                               | 0.087                               | 0.1138                              | 0.006                               | 5.220         | 0.423               | 0.3325              | 0.011               | 0.83                | 1862 | 102   | 1851 | 54 | 1  |

Rejected analyses

|      |     |     |      |      |      |       |       |        |       |       |       |        |       |      |      |    |      |    |    |
|------|-----|-----|------|------|------|-------|-------|--------|-------|-------|-------|--------|-------|------|------|----|------|----|----|
| 55.2 | 91  | 33  | 0.37 | 18.2 | 1.12 | 4.280 | 0.060 | 0.1017 | 0.003 | 3.241 | 0.106 | 0.2311 | 0.004 | 0.47 | 1656 | 53 | 1340 | 18 | 19 |
| 55.1 | 85  | 30  | 0.35 | 15.4 | 0.52 | 4.740 | 0.080 | 0.1054 | 0.004 | 3.052 | 0.128 | 0.2100 | 0.004 | 0.41 | 1721 | 70 | 1229 | 19 | 29 |
| 20.1 | 23  | 32  | 1.43 | 6.2  | 5.66 | 3.152 | 0.126 | 0.1018 | 0.016 | 4.307 | 0.848 | 0.3069 | 0.016 | 0.85 | 1726 | 79 | 1726 | 79 | -4 |
| 8.1  | 276 | 219 | 0.79 | 63.8 | 0.92 | 3.720 | 0.057 | 0.1069 | 0.003 | 3.928 | 0.113 | 0.2663 | 0.004 | 0.53 | 1748 | 45 | 1522 | 21 | 13 |
| 39.1 | 195 | 43  | 0.22 | 39.8 | 0.24 | 4.220 | 0.050 | 0.1112 | 0.001 | 3.626 | 0.060 | 0.2364 | 0.003 | 0.77 | 1820 | 19 | 1368 | 16 | 25 |
| 47.1 | 110 | 60  | 0.55 | 32.2 | 0.07 | 2.930 | 0.040 | 0.1314 | 0.010 | 6.171 | 0.486 | 0.3406 | 0.005 | 0.18 | 1890 | 23 | 1890 | 23 | 11 |
| 19.1 | 51  | 43  | 0.84 | 13.7 | 2.61 | 3.229 | 0.091 | 0.1158 | 0.006 | 4.898 | 0.385 | 0.3067 | 0.010 | 0.83 | 1893 | 99 | 1724 | 48 | 9  |

|      |     |     |      |      |      |       |       |        |       |       |       |        |       |      |      |    |      |    |    |
|------|-----|-----|------|------|------|-------|-------|--------|-------|-------|-------|--------|-------|------|------|----|------|----|----|
| 5.1  | 46  | 48  | 1.04 | 12.2 | 0.81 | 3.254 | 0.092 | 0.1182 | 0.007 | 4.967 | 0.310 | 0.3048 | 0.009 | 0.47 | 1929 | 99 | 1715 | 44 | 11 |
| 4.1  | 216 | 120 | 0.55 | 49.0 | 0.33 | 3.793 | 0.065 | 0.1198 | 0.002 | 4.341 | 0.115 | 0.2628 | 0.005 | 0.65 | 1953 | 36 | 1504 | 23 | 23 |
| 13.1 | 43  | 43  | 0.99 | 11.3 | 0.45 | 3.291 | 0.095 | 0.1209 | 0.004 | 5.041 | 0.214 | 0.3024 | 0.009 | 0.68 | 1969 | 55 | 1703 | 44 | 14 |
| 53.2 | 159 | 119 | 0.74 | 40.0 | 0.32 | 3.430 | 0.050 | 0.1556 | 0.001 | 6.238 | 0.104 | 0.2908 | 0.004 | 0.85 | 2408 | 15 | 1646 | 21 | 32 |
| 53.1 | 143 | 103 | 0.72 | 40.9 | 0.55 | 3.000 | 0.040 | 0.1559 | 0.001 | 7.134 | 0.117 | 0.3318 | 0.005 | 0.86 | 2412 | 14 | 1847 | 23 | 23 |

## Data Repository Item 2016277

### Table DR2 – LA-ICP-MS detrital zircon U-Pb isotopic data and age results

#### Analytical Methods

Zircon U-Pb geochronology was conducted by laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS) at the Arizona LaserChron Center (Gehrels et al., 2008; see also Arizona LaserChron Center website for complete methodology and data reduction protocols – <https://sites.google.com/a/laserchron.org/laserchron/home/>). The analyses involved the ablation of zircon with New Wave UP193HE or Photon Machines Analyte G2 Excimer laser using a spot diameter of 30 microns. The ablated material was carried in helium into the plasma source of a Nu Instruments or Thermo-Finnigan Element2 HR-ICP-MS, which is equipped with a flight tube of sufficient width that U, Th, and Pb isotopes are measured simultaneously. For each analysis, the errors in determining  $^{206}\text{Pb}/^{238}\text{U}$  and  $^{206}\text{Pb}/^{204}\text{Pb}$  result in a measurement error of ~1-2% (at 2-sigma level) in the  $^{206}\text{Pb}/^{238}\text{U}$  age. The errors in measurement of  $^{206}\text{Pb}/^{207}\text{Pb}$  and  $^{206}\text{Pb}/^{204}\text{Pb}$  also result in ~1-2% (at 2-sigma level) uncertainty in age for grains that are >1.0 Ga, but are substantially larger for younger grains due to low intensity of the  $^{207}\text{Pb}$  signal. For most analyses, the cross-over in precision of  $^{206}\text{Pb}/^{238}\text{U}$  and  $^{206}\text{Pb}/^{207}\text{Pb}$  ages occurs at ~1.0 Ga.  $^{204}\text{Hg}$  interference with  $^{204}\text{Pb}$  is accounted for measurement of  $^{202}\text{Hg}$  during laser ablation and subtraction of  $^{204}\text{Hg}$  according to the natural  $^{202}\text{Hg}/^{204}\text{Hg}$  of 4.35. This Hg correction is not significant for most analyses because Hg backgrounds are low (generally ~150 cps at mass 204). Common Pb corrections are accomplished by using the Hg-corrected  $^{204}\text{Pb}$ , assuming an initial Pb composition from Stacey and Kramers (1975). Uncertainties of 1.5 for  $^{206}\text{Pb}/^{204}\text{Pb}$  and 0.3 for  $^{207}\text{Pb}/^{204}\text{Pb}$  are applied to these compositional values based on the Pb isotopic variation of modern rocks. Inter-element fractionation of Pb/U is generally ~5%, whereas apparent fractionation of Pb isotopes is generally <0.2%. In-run analysis of fragments of a large zircon crystal (generally every fifth measurement) with known age of  $563.5 \pm 3.2$  Ma (2-sigma error) is used to correct for this fractionation. The uncertainty resulting from the calibration correction is generally 1-2% (2-sigma) for both  $^{206}\text{Pb}/^{207}\text{Pb}$  and  $^{206}\text{Pb}/^{238}\text{U}$  ages. Concentrations of U and Th are calibrated relative to Sri Lanka zircon at the ALC, which contains ~518 ppm of U and 68 ppm Th.

#### Notes for Table DR2

Analyses with >10% uncertainty (1-sigma) in  $^{206}\text{Pb}/^{238}\text{U}$  age are not included. Analyses with >10% uncertainty (1-sigma) in  $^{206}\text{Pb}/^{207}\text{Pb}$  age are not included, unless  $^{206}\text{Pb}/^{238}\text{U}$  age is <500 Ma. Best age is determined from  $^{206}\text{Pb}/^{238}\text{U}$  age for analyses with  $^{206}\text{Pb}/^{238}\text{U}$  age <1000 Ma and from  $^{206}\text{Pb}/^{207}\text{Pb}$  age for analyses with  $^{206}\text{Pb}/^{238}\text{U}$  age >1000 Ma. Concordance is based on  $^{206}\text{Pb}/^{238}\text{U}$  age /  $^{206}\text{Pb}/^{207}\text{Pb}$  age. Value is not reported for  $^{206}\text{Pb}/^{238}\text{U}$  ages <500 Ma (see “NA” in Conc. % column) because of large uncertainty in  $^{206}\text{Pb}/^{207}\text{Pb}$  age. Analyses with  $^{206}\text{Pb}/^{238}\text{U}$  age >500 Ma and with >20% discordance (<80% concordance) are not included. Analyses with  $^{206}\text{Pb}/^{238}\text{U}$  age >500 Ma and with >5% reverse discordance (<105% concordance) are not included. All uncertainties are reported at the 1-sigma level, and include only measurement errors. U concentration and U/Th are calibrated relative to Sri Lanka zircon standard and are accurate to ~20%. U/Pb and  $^{206}\text{Pb}/^{207}\text{Pb}$  fractionation is calibrated relative to fragments of a large Sri Lanka zircon

of  $563.5 \pm 3.2$  Ma (2-sigma). U decay constants and composition as follows:  $^{238}\text{U} = 9.8485 \times 10^{-10}$ ,  $^{235}\text{U} = 1.55125 \times 10^{-10}$ ,  $^{238}\text{U}/^{235}\text{U} = 137.88$

#### References

Gehrels, G.E., Valencia, V., Ruiz, J., 2008, Enhanced precision, accuracy, efficiency, and spatial resolution of U-Pb ages by laser ablation–multicollector–inductively coupled plasma–mass spectrometry: *Geochemistry, Geophysics, Geosystems*, v. 9, Q03017, doi:10.1029/2007GC001805.

Stacey, J.S., and Kramers, J.D., 1975, Approximation of terrestrial lead isotope evolution by a two–stage model: *Earth and Planetary Science Letters*, v. 26, p. 207–221.

**Table DR2. LA-ICP-MS zircon U-Pb results from the Arizona Laserchron Center**

5TA09 - Kinnikinic Quartzite, 11T 0704524E 4904040N NAD 27

| Spot     | U<br>(ppm) | <sup>206</sup> Pb<br><sup>204</sup> Pb | Th/U | Isotopic ratios                        |     |                                       |     |                                       | Corr<br>Coeff | Isotopic ages |  |  |   |    | Conc.<br>% |    |     |
|----------|------------|--|------|--|-----|---------------------------------------|-----|---------------------------------------|---------------|---------------|--|--|---|----|------------|----|-----|
|          |            |  |      | <sup>206</sup> Pb<br><sup>207</sup> Pb | % ± | <sup>207</sup> Pb<br><sup>235</sup> U | % ± | <sup>206</sup> Pb<br><sup>238</sup> U |               | % ±           | <sup>206</sup> Pb ±<br><sup>238</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>235</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>206</sup> Pb (Ma) |    |            |    |     |
| 5TA09-12 | 47         | 1338                                   | 1.4  | 9.387                                  | 2.4 | 4.691                                 | 3.5 | 0.319                                 | 2.6           | 0.74          | 1787   | 41   | 1766  | 30 | 1741       | 43 | 103 |
| 5TA09-28 | 52         | 4692                                   | 2.0  | 9.386                                  | 2.0 | 4.527                                 | 2.5 | 0.308                                 | 1.4           | 0.57          | 1732   | 21   | 1736  | 20 | 1741       | 37 | 99  |
| 5TA09-67 | 52         | 1603                                   | 1.5  | 9.265                                  | 2.4 | 4.922                                 | 3.1 | 0.331                                 | 2.0           | 0.65          | 1842   | 32   | 1806  | 26 | 1765       | 43 | 104 |
| 5TA09-6  | 38         | 1506                                   | 0.9  | 9.186                                  | 3.1 | 4.767                                 | 3.3 | 0.318                                 | 1.0           | 0.31          | 1778   | 16   | 1779  | 27 | 1780       | 57 | 100 |
| 5TA09-74 | 47         | 2341                                   | 1.0  | 9.160                                  | 2.1 | 4.835                                 | 2.4 | 0.321                                 | 1.0           | 0.44          | 1796   | 16   | 1791  | 20 | 1786       | 39 | 101 |
| 5TA09-16 | 62         | 2176                                   | 2.1  | 9.116                                  | 1.9 | 4.892                                 | 2.5 | 0.323                                 | 1.7           | 0.66          | 1806   | 27   | 1801  | 21 | 1794       | 35 | 101 |
| 5TA09-8  | 42         | 1362                                   | 1.1  | 9.102                                  | 2.3 | 4.914                                 | 3.0 | 0.324                                 | 1.9           | 0.64          | 1811   | 30   | 1805  | 25 | 1797       | 42 | 101 |
| 5TA09-73 | 54         | 2738                                   | 1.7  | 9.077                                  | 1.4 | 5.049                                 | 3.4 | 0.332                                 | 3.1           | 0.91          | 1850   | 50   | 1828  | 29 | 1802       | 26 | 103 |
| 5TA09-2  | 67         | 2949                                   | 1.5  | 9.074                                  | 2.2 | 4.840                                 | 2.9 | 0.319                                 | 1.9           | 0.64          | 1782   | 29   | 1792  | 24 | 1803       | 40 | 99  |
| 5TA09-17 | 48         | 1610                                   | 1.4  | 9.018                                  | 2.8 | 4.991                                 | 3.5 | 0.326                                 | 2.1           | 0.59          | 1821   | 33   | 1818  | 29 | 1814       | 51 | 100 |
| 5TA09-27 | 48         | 4478                                   | 1.3  | 9.009                                  | 2.0 | 5.041                                 | 2.6 | 0.329                                 | 1.6           | 0.62          | 1835   | 26   | 1826  | 22 | 1816       | 36 | 101 |
| 5TA09-72 | 49         | 2779                                   | 1.5  | 8.963                                  | 1.5 | 5.102                                 | 2.4 | 0.332                                 | 1.8           | 0.78          | 1846   | 29   | 1836  | 20 | 1825       | 27 | 101 |
| 5TA09-71 | 74         | 4375                                   | 1.5  | 8.923                                  | 1.1 | 5.093                                 | 2.2 | 0.330                                 | 1.9           | 0.87          | 1837   | 30   | 1835  | 18 | 1833       | 19 | 100 |
| 5TA09-35 | 78         | 4182                                   | 1.8  | 8.915                                  | 1.4 | 5.115                                 | 2.6 | 0.331                                 | 2.2           | 0.85          | 1842   | 36   | 1839  | 22 | 1835       | 25 | 100 |
| 5TA09-64 | 94         | 3602                                   | 1.8  | 8.912                                  | 1.2 | 5.086                                 | 2.5 | 0.329                                 | 2.1           | 0.87          | 1832   | 34   | 1834  | 21 | 1835       | 22 | 100 |
| 5TA09-87 | 83         | 5713                                   | 2.7  | 8.902                                  | 1.7 | 5.076                                 | 3.2 | 0.328                                 | 2.7           | 0.85          | 1827   | 43   | 1832  | 27 | 1837       | 30 | 99  |
| 5TA09-14 | 148        | 4147                                   | 2.3  | 8.902                                  | 1.0 | 5.161                                 | 1.7 | 0.333                                 | 1.4           | 0.83          | 1854   | 23   | 1846  | 15 | 1838       | 17 | 101 |
| 5TA09-38 | 60         | 4415                                   | 1.2  | 8.888                                  | 2.1 | 5.185                                 | 2.2 | 0.334                                 | 0.8           | 0.36          | 1859   | 13   | 1850  | 19 | 1840       | 38 | 101 |
| 5TA09-1  | 237        | 9523                                   | 4.8  | 8.854                                  | 1.0 | 4.955                                 | 2.6 | 0.318                                 | 2.4           | 0.92          | 1781   | 38   | 1812  | 22 | 1847       | 18 | 96  |
| 5TA09-81 | 33         | 2006                                   | 1.0  | 8.849                                  | 2.6 | 5.356                                 | 2.9 | 0.344                                 | 1.3           | 0.46          | 1905   | 22   | 1878  | 25 | 1848       | 47 | 103 |
| 5TA09-91 | 180        | 11727                                  | 2.0  | 8.844                                  | 0.8 | 5.171                                 | 1.1 | 0.332                                 | 0.7           | 0.65          | 1847   | 11   | 1848  | 9  | 1849       | 15 | 100 |
| 5TA09-82 | 37         | 1894                                   | 1.3  | 8.841                                  | 2.4 | 5.300                                 | 3.0 | 0.340                                 | 1.7           | 0.59          | 1886   | 29   | 1869  | 25 | 1850       | 43 | 102 |
| 5TA09-36 | 53         | 3670                                   | 0.6  | 8.839                                  | 1.5 | 5.202                                 | 2.7 | 0.333                                 | 2.3           | 0.84          | 1855   | 37   | 1853  | 23 | 1850       | 26 | 100 |
| 5TA09-84 | 84         | 5652                                   | 1.3  | 8.815                                  | 1.5 | 5.106                                 | 2.0 | 0.326                                 | 1.3           | 0.67          | 1821   | 21   | 1837  | 17 | 1855       | 27 | 98  |
| 5TA09-25 | 60         | 11442                                  | 1.1  | 8.812                                  | 1.0 | 5.137                                 | 2.7 | 0.328                                 | 2.5           | 0.92          | 1830   | 39   | 1842  | 23 | 1856       | 19 | 99  |
| 5TA09-29 | 80         | 7486                                   | 1.3  | 8.811                                  | 0.8 | 5.143                                 | 1.8 | 0.329                                 | 1.6           | 0.89          | 1832   | 25   | 1843  | 15 | 1856       | 15 | 99  |
| 5TA09-57 | 138        | 8159                                   | 2.0  | 8.811                                  | 0.9 | 5.136                                 | 2.5 | 0.328                                 | 2.3           | 0.93          | 1830   | 37   | 1842  | 21 | 1856       | 16 | 99  |
| 5TA09-99 | 211        | 20542                                  | 2.1  | 8.806                                  | 1.0 | 5.204                                 | 2.7 | 0.332                                 | 2.5           | 0.92          | 1850   | 40   | 1853  | 23 | 1857       | 19 | 100 |
| 5TA09-45 | 88         | 5917                                   | 1.5  | 8.800                                  | 1.3 | 5.194                                 | 2.2 | 0.331                                 | 1.8           | 0.81          | 1846   | 29   | 1852  | 19 | 1858       | 23 | 99  |
| 5TA09-26 | 109        | 10522                                  | 1.3  | 8.790                                  | 1.1 | 5.175                                 | 2.1 | 0.330                                 | 1.8           | 0.85          | 1838   | 29   | 1849  | 18 | 1860       | 20 | 99  |
| 5TA09-34 | 91         | 4964                                   | 2.1  | 8.790                                  | 0.6 | 5.108                                 | 1.6 | 0.326                                 | 1.4           | 0.92          | 1817   | 23   | 1837  | 13 | 1860       | 11 | 98  |
| 5TA09-9  | 172        | 4694                                   | 0.6  | 8.788                                  | 0.7 | 4.945                                 | 1.5 | 0.315                                 | 1.3           | 0.87          | 1766   | 20   | 1810  | 12 | 1861       | 13 | 95  |
| 5TA09-86 | 531        | 27308                                  | 3.0  | 8.779                                  | 0.4 | 5.012                                 | 1.6 | 0.319                                 | 1.5           | 0.97          | 1785   | 24   | 1821  | 13 | 1863       | 7  | 96  |
| 5TA09-21 | 127        | 18358                                  | 0.9  | 8.777                                  | 1.3 | 5.131                                 | 2.2 | 0.327                                 | 1.7           | 0.80          | 1822   | 27   | 1841  | 18 | 1863       | 24 | 98  |
| 5TA09-48 | 94         | 6878                                   | 2.6  | 8.764                                  | 1.8 | 5.039                                 | 2.4 | 0.320                                 | 1.6           | 0.67          | 1791   | 25   | 1826  | 20 | 1866       | 32 | 96  |
| 5TA09-63 | 67         | 2645                                   | 1.8  | 8.737                                  | 2.3 | 5.443                                 | 3.6 | 0.345                                 | 2.7           | 0.76          | 1910   | 45   | 1892  | 31 | 1871       | 42 | 102 |
| 5TA09-56 | 91         | 5324                                   | 1.7  | 8.731                                  | 1.2 | 5.009                                 | 2.5 | 0.317                                 | 2.2           | 0.89          | 1776   | 35   | 1821  | 21 | 1872       | 21 | 95  |
| 5TA09-43 | 155        | 11303                                  | 2.2  | 8.721                                  | 0.7 | 5.255                                 | 2.3 | 0.332                                 | 2.2           | 0.95          | 1850   | 35   | 1862  | 20 | 1875       | 12 | 99  |
| 5TA09-4  | 306        | 12315                                  | 1.8  | 8.714                                  | 0.5 | 5.142                                 | 2.2 | 0.325                                 | 2.1           | 0.98          | 1814   | 33   | 1843  | 18 | 1876       | 8  | 97  |
| 5TA09-39 | 170        | 13106                                  | 2.6  | 8.711                                  | 0.6 | 5.225                                 | 2.5 | 0.330                                 | 2.5           | 0.98          | 1839   | 39   | 1857  | 21 | 1877       | 10 | 98  |
| 5TA09-15 | 168        | 5082                                   | 2.7  | 8.694                                  | 0.8 | 5.343                                 | 2.7 | 0.337                                 | 2.6           | 0.96          | 1872   | 42   | 1876  | 23 | 1880       | 14 | 100 |
| 5TA09-85 | 57         | 3257                                   | 1.8  | 8.682                                  | 2.1 | 4.931                                 | 2.6 | 0.311                                 | 1.6           | 0.60          | 1743   | 24   | 1808  | 22 | 1883       | 37 | 93  |
| 5TA09-44 | 310        | 16801                                  | 3.4  | 8.675                                  | 0.4 | 5.103                                 | 1.6 | 0.321                                 | 1.6           | 0.97          | 1795   | 24   | 1837  | 14 | 1884       | 7  | 95  |
| 5TA09-20 | 62         | 3104                                   | 2.5  | 8.623                                  | 1.8 | 5.452                                 | 2.7 | 0.341                                 | 2.0           | 0.75          | 1891   | 33   | 1893  | 23 | 1895       | 32 | 100 |
| 5TA09-68 | 232        | 7900                                   | 4.2  | 8.604                                  | 0.5 | 5.539                                 | 1.5 | 0.346                                 | 1.4           | 0.95          | 1914   | 24   | 1907  | 13 | 1899       | 8  | 101 |
| 5TA09-13 | 133        | 3770                                   | 2.4  | 8.583                                  | 0.9 | 5.420                                 | 2.5 | 0.337                                 | 2.3           | 0.94          | 1874   | 37   | 1888  | 21 | 1903       | 15 | 98  |
| 5TA09-83 | 76         | 4356                                   | 1.3  | 8.575                                  | 0.9 | 5.567                                 | 2.0 | 0.346                                 | 1.8           | 0.88          | 1917   | 30   | 1911  | 17 | 1905       | 17 | 101 |

|           |     |       |     |       |     |        |     |       |     |      |      |    |      |    |      |    |     |
|-----------|-----|-------|-----|-------|-----|--------|-----|-------|-----|------|------|----|------|----|------|----|-----|
| 5TA09-95  | 97  | 10324 | 2.0 | 8.429 | 1.1 | 5.651  | 2.0 | 0.345 | 1.7 | 0.83 | 1913 | 27 | 1924 | 17 | 1936 | 20 | 99  |
| 5TA09-52  | 88  | 6356  | 1.2 | 8.414 | 1.2 | 5.790  | 2.5 | 0.353 | 2.1 | 0.87 | 1951 | 36 | 1945 | 21 | 1939 | 22 | 101 |
| 5TA09-59  | 97  | 6903  | 1.3 | 8.409 | 0.9 | 5.719  | 1.6 | 0.349 | 1.4 | 0.84 | 1929 | 23 | 1934 | 14 | 1940 | 16 | 99  |
| 5TA09-53  | 121 | 8905  | 1.4 | 8.406 | 0.8 | 5.776  | 2.3 | 0.352 | 2.1 | 0.94 | 1945 | 36 | 1943 | 20 | 1941 | 14 | 100 |
| 5TA09-94  | 182 | 16085 | 1.3 | 8.388 | 0.9 | 5.595  | 2.3 | 0.340 | 2.2 | 0.93 | 1889 | 35 | 1915 | 20 | 1945 | 16 | 97  |
| 5TA09-78  | 174 | 12043 | 2.1 | 8.372 | 0.7 | 5.813  | 3.4 | 0.353 | 3.4 | 0.98 | 1949 | 57 | 1948 | 30 | 1948 | 13 | 100 |
| 5TA09-75  | 60  | 2573  | 1.3 | 8.332 | 1.9 | 5.655  | 2.6 | 0.342 | 1.8 | 0.68 | 1895 | 30 | 1925 | 23 | 1957 | 34 | 97  |
| 5TA09-46  | 206 | 17564 | 3.2 | 8.331 | 0.6 | 5.809  | 2.1 | 0.351 | 2.0 | 0.95 | 1939 | 33 | 1948 | 18 | 1957 | 11 | 99  |
| 5TA09-77  | 138 | 9748  | 1.2 | 8.330 | 0.7 | 5.739  | 2.0 | 0.347 | 1.9 | 0.93 | 1919 | 31 | 1937 | 17 | 1957 | 13 | 98  |
| 5TA09-93  | 207 | 16522 | 0.6 | 8.322 | 0.5 | 5.718  | 3.2 | 0.345 | 3.1 | 0.99 | 1911 | 52 | 1934 | 28 | 1959 | 10 | 98  |
| 5TA09-31  | 41  | 3694  | 1.7 | 8.316 | 1.3 | 5.842  | 2.4 | 0.352 | 1.9 | 0.82 | 1946 | 32 | 1953 | 20 | 1960 | 24 | 99  |
| 5TA09-37  | 44  | 3355  | 2.1 | 8.304 | 1.9 | 5.989  | 2.4 | 0.361 | 1.4 | 0.59 | 1985 | 24 | 1974 | 21 | 1963 | 35 | 101 |
| 5TA09-47  | 105 | 8917  | 1.5 | 8.298 | 1.0 | 5.819  | 1.9 | 0.350 | 1.6 | 0.85 | 1936 | 27 | 1949 | 16 | 1964 | 18 | 99  |
| 5TA09-24  | 170 | 30860 | 0.8 | 8.272 | 0.6 | 5.887  | 1.8 | 0.353 | 1.7 | 0.95 | 1950 | 29 | 1959 | 16 | 1969 | 11 | 99  |
| 5TA09-90  | 436 | 14034 | 1.1 | 8.271 | 0.6 | 5.746  | 1.8 | 0.345 | 1.7 | 0.95 | 1909 | 28 | 1938 | 15 | 1970 | 10 | 97  |
| 5TA09-49  | 248 | 19861 | 1.9 | 8.255 | 0.4 | 5.944  | 1.7 | 0.356 | 1.7 | 0.97 | 1963 | 28 | 1968 | 15 | 1973 | 7  | 99  |
| 5TA09-32  | 49  | 2654  | 0.9 | 8.194 | 1.5 | 6.061  | 2.6 | 0.360 | 2.2 | 0.83 | 1983 | 37 | 1985 | 23 | 1986 | 26 | 100 |
| 5TA09-62  | 49  | 2292  | 1.1 | 8.044 | 1.7 | 6.355  | 2.1 | 0.371 | 1.3 | 0.61 | 2033 | 23 | 2026 | 19 | 2019 | 30 | 101 |
| 5TA09-65  | 305 | 13304 | 1.5 | 8.027 | 0.7 | 6.221  | 1.8 | 0.362 | 1.7 | 0.93 | 1992 | 29 | 2007 | 16 | 2023 | 12 | 98  |
| 5TA09-60  | 61  | 2881  | 1.8 | 7.788 | 1.3 | 6.686  | 2.1 | 0.378 | 1.7 | 0.79 | 2065 | 29 | 2071 | 18 | 2076 | 22 | 99  |
| 5TA09-98  | 82  | 10466 | 1.4 | 7.752 | 1.1 | 6.631  | 3.3 | 0.373 | 3.1 | 0.94 | 2043 | 55 | 2063 | 29 | 2084 | 20 | 98  |
| 5TA09-5   | 109 | 5272  | 4.0 | 7.720 | 1.0 | 6.504  | 1.7 | 0.364 | 1.4 | 0.83 | 2002 | 25 | 2046 | 15 | 2092 | 17 | 96  |
| 5TA09-7   | 115 | 4768  | 1.9 | 7.681 | 0.8 | 6.559  | 2.2 | 0.365 | 2.1 | 0.93 | 2007 | 35 | 2054 | 20 | 2101 | 15 | 96  |
| 5TA09-76  | 143 | 10723 | 1.4 | 7.675 | 0.6 | 6.742  | 2.4 | 0.375 | 2.3 | 0.96 | 2054 | 41 | 2078 | 21 | 2102 | 11 | 98  |
| 5TA09-22  | 86  | 16894 | 2.1 | 7.632 | 1.0 | 6.911  | 1.4 | 0.383 | 1.0 | 0.71 | 2088 | 18 | 2100 | 13 | 2112 | 18 | 99  |
| 5TA09-100 | 191 | 22773 | 3.4 | 7.519 | 2.2 | 7.283  | 5.0 | 0.397 | 4.5 | 0.90 | 2156 | 82 | 2147 | 45 | 2138 | 39 | 101 |
| 5TA09-42  | 329 | 31782 | 6.1 | 7.452 | 0.2 | 7.354  | 1.9 | 0.397 | 1.9 | 0.99 | 2157 | 34 | 2155 | 17 | 2153 | 4  | 100 |
| 5TA09-54  | 33  | 3231  | 1.5 | 6.460 | 1.3 | 9.385  | 1.6 | 0.440 | 0.9 | 0.57 | 2349 | 18 | 2376 | 15 | 2400 | 23 | 98  |
| 5TA09-88  | 84  | 6921  | 2.9 | 6.092 | 0.5 | 10.600 | 2.8 | 0.468 | 2.8 | 0.98 | 2476 | 57 | 2489 | 26 | 2499 | 8  | 99  |
| 5TA09-58  | 224 | 19107 | 2.8 | 5.881 | 0.3 | 10.872 | 1.9 | 0.464 | 1.9 | 0.99 | 2456 | 39 | 2512 | 18 | 2558 | 5  | 96  |
| 5TA09-50  | 43  | 4196  | 1.1 | 5.692 | 1.4 | 11.443 | 2.7 | 0.472 | 2.3 | 0.86 | 2494 | 48 | 2560 | 25 | 2612 | 23 | 95  |
| 5TA09-96  | 84  | 14753 | 2.0 | 5.455 | 0.8 | 12.823 | 2.0 | 0.507 | 1.8 | 0.92 | 2645 | 40 | 2667 | 19 | 2683 | 13 | 99  |
| 5TA09-19  | 299 | 19177 | 3.5 | 5.430 | 0.2 | 12.888 | 1.9 | 0.508 | 1.9 | 0.99 | 2646 | 41 | 2672 | 18 | 2691 | 3  | 98  |
| 5TA09-55  | 102 | 13092 | 0.6 | 5.246 | 0.3 | 13.960 | 1.6 | 0.531 | 1.6 | 0.98 | 2746 | 35 | 2747 | 15 | 2747 | 5  | 100 |
| 5TA09-3   | 230 | 17213 | 8.3 | 5.229 | 0.2 | 13.465 | 1.5 | 0.511 | 1.5 | 0.99 | 2659 | 32 | 2713 | 14 | 2753 | 4  | 97  |
| 5TA09-51  | 78  | 9508  | 1.2 | 5.172 | 0.6 | 13.973 | 2.0 | 0.524 | 1.9 | 0.96 | 2717 | 43 | 2748 | 19 | 2771 | 9  | 98  |
| 5TA09-97  | 52  | 11813 | 2.6 | 3.810 | 1.1 | 21.377 | 2.7 | 0.591 | 2.4 | 0.91 | 2992 | 59 | 3156 | 26 | 3262 | 18 | 92  |

Rejected analyses

|          |     |       |     |        |      |       |       |       |      |       |        |      |      |     |      |     |              |
|----------|-----|-------|-----|--------|------|-------|-------|-------|------|-------|--------|------|------|-----|------|-----|--------------|
| 5TA09-40 | 99  | 6906  | 1.2 | 9.217  | 6.1  | 4.380 | 9.2   | 0.293 | 6.9  | 0.75  | 1656   | 101  | 1709 | 76  | 1774 | 111 | 93           |
| 5TA09-89 | 178 | 10551 | 2.4 | 8.458  | 0.7  | 5.011 | 3.6   | 0.307 | 3.5  | 0.98  | 1728   | 53   | 1821 | 30  | 1930 | 13  | 90           |
| 5TA09-92 | 423 | 28744 | 2.1 | 5.607  | 1.8  | 9.188 | 5.2   | 0.374 | 4.8  | 0.94  | 2046   | 85   | 2357 | 47  | 2638 | 30  | 78           |
| 5TA09-11 | 110 | 2807  | 1.0 | 8.659  | 1.1  | 5.236 | 2.474 | 0.329 | 2.21 | 0.892 | 1832.7 | 35.2 | 1858 | 21  | NA   | NA  | High 204     |
| 5TA09-23 | 12  | 2044  | 1.0 | 9.564  | 10.6 | 4.750 | 10.68 | 0.329 | 1.16 | 0.109 | 1835.8 | 18.6 | 1776 | 90  | NA   | NA  | High 6/7 err |
| 5TA09-30 | 41  | 2878  | 0.8 | 8.461  | 4.8  | 5.160 | 14.61 | 0.317 | 13.8 | 0.944 | 1773.2 | 214  | 1846 | 125 | NA   | NA  | High 6/8 err |
| 5TA09-33 | 130 | 6177  | 2.4 | 7.669  | 0.7  | 5.814 | 13.02 | 0.323 | 13   | 0.999 | 1806.2 | 205  | 1949 | 113 | NA   | NA  | High 6/8 err |
| 5TA09-41 | 43  | 1788  | 2.9 | 15.415 | 8.6  | 1.506 | 9.027 | 0.168 | 2.68 | 0.297 | 1003.2 | 24.9 | 933  | 55  | NA   | NA  | High 6/7 err |
| 5TA09-48 | 34  | 3176  | 0.4 | 8.684  | 1.6  | 5.311 | 16.49 | 0.334 | 16.4 | 0.995 | 1860.1 | 265  | 1871 | 142 | NA   | NA  | High 6/8 err |
| 5TA09-61 | 45  | 1366  | 0.7 | 9.417  | 2.7  | 4.869 | 3.576 | 0.333 | 2.3  | 0.644 | 1850.6 | 37   | 1797 | 30  | NA   | NA  | Rev disc.    |
| 5TA09-66 | 49  | 1543  | 1.5 | 8.073  | 3.0  | 5.307 | 4.764 | 0.311 | 3.68 | 0.771 | 1744.2 | 56.2 | 1870 | 41  | NA   | NA  | High 204     |
| 5TA09-69 | 33  | 1130  | 2.0 | 9.972  | 4.5  | 4.587 | 4.93  | 0.332 | 2.03 | 0.412 | 1846.9 | 32.6 | 1747 | 41  | NA   | NA  | Rev disc.    |
| 5TA09-70 | 32  | 1009  | 0.6 | 9.418  | 3.7  | 4.856 | 4.143 | 0.332 | 1.94 | 0.467 | 1846.6 | 31.1 | 1795 | 35  | NA   | NA  | Rev disc.    |
| 5TA09-80 | 473 | 3074  | 0.5 | 18.080 | 3.3  | 0.571 | 3.471 | 0.075 | 1.15 | 0.331 | 465.81 | 5.17 | 459  | 13  | NA   | NA  | High 204     |

09TD10 - Kinnikinic Quartzite, 11T 0726128E 4849899N NAD 27

| Spot     | U<br>(ppm) | Isotopic ratios                         |      |   |     |  |     |  | Isotopic ages |               |  |  |   |    |      | Conc.<br>% |     |
|----------|------------|---|------|---|-----|--|-----|--|---------------|---------------|--|--|---|----|------|------------|-----|
|          |            | <sup>206</sup> Pb/<br><sup>204</sup> Pb | Th/U | <sup>206</sup> Pb/<br><sup>207</sup> Pb | % ± | <sup>207</sup> Pb/<br><sup>235</sup> U | % ± | <sup>206</sup> Pb/<br><sup>238</sup> U | % ±           | Corr<br>Coeff | <sup>206</sup> Pb ±<br><sup>238</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>235</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>206</sup> Pb (Ma) |    |      |            |     |
| 9TD10-1  | 97         | 575628                                  | 1.6  | 4.827                                   | 0.4 | 15.738                                 | 2.0 | 0.551                                  | 2.0           | 0.98          | 2829   | 45   | 2861  | 19 | 2884 | 6          | 98  |
| 9TD10-2  | 774        | 1998119                                 | 3.3  | 8.909                                   | 0.2 | 4.901                                  | 1.0 | 0.317                                  | 1.0           | 0.98          | 1773   | 16   | 1802  | 9  | 1836 | 3          | 97  |
| 9TD10-3  | 124        | 434855                                  | 1.0  | 8.489                                   | 0.9 | 5.742                                  | 3.3 | 0.354                                  | 3.2           | 0.97          | 1951   | 54   | 1938  | 29 | 1923 | 16         | 101 |
| 9TD10-4  | 374        | 1574730                                 | 1.8  | 8.729                                   | 0.2 | 5.074                                  | 1.6 | 0.321                                  | 1.5           | 0.99          | 1796   | 24   | 1832  | 13 | 1873 | 4          | 96  |
| 9TD10-5  | 179        | 596898                                  | 0.5  | 8.373                                   | 0.5 | 5.652                                  | 1.8 | 0.343                                  | 1.8           | 0.96          | 1902   | 29   | 1924  | 16 | 1948 | 10         | 98  |
| 9TD10-6  | 244        | 925022                                  | 0.9  | 8.828                                   | 0.4 | 5.070                                  | 1.5 | 0.325                                  | 1.4           | 0.96          | 1812   | 22   | 1831  | 13 | 1853 | 8          | 98  |
| 9TD10-7  | 49         | 216075                                  | 0.8  | 5.065                                   | 0.8 | 14.579                                 | 1.4 | 0.536                                  | 1.1           | 0.82          | 2765   | 25   | 2788  | 13 | 2805 | 13         | 99  |
| 9TD10-8  | 543        | 1668609                                 | 1.8  | 8.867                                   | 0.3 | 5.077                                  | 2.1 | 0.327                                  | 2.1           | 0.99          | 1822   | 33   | 1832  | 18 | 1845 | 5          | 99  |
| 9TD10-9  | 360        | 675248                                  | 1.8  | 13.503                                  | 1.2 | 1.693                                  | 1.6 | 0.166                                  | 1.0           | 0.64          | 989  | 9  | 1006  | 10 | 1043 | 24         | 95  |
| 9TD10-10 | 130        | 725204                                  | 1.0  | 8.750                                   | 2.5 | 5.087                                  | 4.4 | 0.323                                  | 3.7           | 0.83          | 1803   | 58   | 1834  | 38 | 1869 | 45         | 97  |
| 9TD10-11 | 246        | 931419                                  | 2.8  | 8.475                                   | 0.5 | 5.515                                  | 1.6 | 0.339                                  | 1.5           | 0.96          | 1882   | 25   | 1903  | 14 | 1926 | 8          | 98  |
| 9TD10-12 | 696        | 1992186                                 | 1.2  | 8.985                                   | 0.3 | 4.458                                  | 1.3 | 0.291                                  | 1.3           | 0.98          | 1644   | 19   | 1723  | 11 | 1821 | 5          | 90  |
| 9TD10-13 | 276        | 1817729                                 | 1.8  | 8.724                                   | 0.4 | 5.174                                  | 1.9 | 0.327                                  | 1.8           | 0.97          | 1826   | 29   | 1848  | 16 | 1874 | 8          | 97  |
| 9TD10-14 | 70         | 274326                                  | 1.0  | 5.716                                   | 0.6 | 11.507                                 | 0.9 | 0.477                                  | 0.7           | 0.78          | 2514   | 15   | 2565  | 8  | 2606 | 9          | 96  |
| 9TD10-15 | 833        | 383327                                  | 9.3  | 8.312                                   | 0.3 | 5.507                                  | 2.0 | 0.332                                  | 1.9           | 0.99          | 1848   | 31   | 1902  | 17 | 1961 | 6          | 94  |
| 9TD10-16 | 271        | 661438                                  | 1.3  | 13.374                                  | 1.3 | 1.750                                  | 2.2 | 0.170                                  | 1.8           | 0.81          | 1011   | 17   | 1027  | 14 | 1062 | 26         | 95  |
| 9TD10-17 | 141        | 388878                                  | 1.8  | 8.929                                   | 1.2 | 4.932                                  | 1.7 | 0.319                                  | 1.3           | 0.73          | 1787   | 20   | 1808  | 15 | 1832 | 22         | 98  |
| 9TD10-18 | 172        | 531081                                  | 1.3  | 8.998                                   | 0.8 | 4.853                                  | 1.3 | 0.317                                  | 1.0           | 0.81          | 1773   | 16   | 1794  | 11 | 1818 | 14         | 98  |
| 9TD10-19 | 86         | 794716                                  | 0.6  | 5.404                                   | 0.8 | 12.969                                 | 1.6 | 0.508                                  | 1.4           | 0.89          | 2649   | 31   | 2677  | 15 | 2699 | 12         | 98  |
| 9TD10-20 | 296        | 2076058                                 | 2.1  | 7.765                                   | 0.4 | 6.522                                  | 2.6 | 0.367                                  | 2.5           | 0.99          | 2017   | 44   | 2049  | 23 | 2081 | 8          | 97  |
| 9TD10-21 | 84         | 1033095                                 | 1.2  | 8.913                                   | 1.4 | 5.082                                  | 2.8 | 0.328                                  | 2.4           | 0.87          | 1831   | 38   | 1833  | 23 | 1835 | 25         | 100 |
| 9TD10-22 | 341        | 1317915                                 | 4.0  | 7.618                                   | 0.3 | 7.117                                  | 2.2 | 0.393                                  | 2.1           | 0.99          | 2138   | 39   | 2126  | 19 | 2115 | 6          | 101 |
| 9TD10-23 | 62         | 270496                                  | 1.3  | 8.838                                   | 1.8 | 5.094                                  | 3.8 | 0.326                                  | 3.3           | 0.87          | 1821   | 52   | 1835  | 32 | 1851 | 33         | 98  |
| 9TD10-24 | 948        | 7495405                                 | 6.5  | 8.710                                   | 0.3 | 5.167                                  | 1.2 | 0.326                                  | 1.2           | 0.97          | 1821   | 19   | 1847  | 11 | 1877 | 5          | 97  |
| 9TD10-25 | 77         | 265956                                  | 1.0  | 8.925                                   | 1.5 | 5.022                                  | 2.7 | 0.325                                  | 2.2           | 0.83          | 1815   | 35   | 1823  | 22 | 1833 | 27         | 99  |
| 9TD10-26 | 93         | 275070                                  | 1.4  | 8.578                                   | 1.4 | 5.435                                  | 2.0 | 0.338                                  | 1.5           | 0.72          | 1878   | 24   | 1890  | 17 | 1904 | 25         | 99  |
| 9TD10-27 | 87         | 344224                                  | 1.4  | 9.023                                   | 1.0 | 4.775                                  | 1.5 | 0.313                                  | 1.1           | 0.73          | 1753   | 17   | 1781  | 12 | 1813 | 18         | 97  |
| 9TD10-28 | 261        | 1081314                                 | 1.2  | 7.750                                   | 0.4 | 6.581                                  | 1.5 | 0.370                                  | 1.4           | 0.97          | 2029   | 25   | 2057  | 13 | 2085 | 7          | 97  |
| 9TD10-29 | 243        | 1370904                                 | 1.2  | 8.834                                   | 0.8 | 5.075                                  | 2.2 | 0.325                                  | 2.0           | 0.93          | 1815   | 32   | 1832  | 19 | 1851 | 14         | 98  |
| 9TD10-30 | 79         | 348891                                  | 1.1  | 5.563                                   | 0.4 | 12.460                                 | 1.9 | 0.503                                  | 1.9           | 0.98          | 2626   | 40   | 2640  | 18 | 2650 | 6          | 99  |
| 9TD10-32 | 233        | 1640891                                 | 1.2  | 8.509                                   | 0.6 | 5.510                                  | 2.1 | 0.340                                  | 2.0           | 0.96          | 1887   | 33   | 1902  | 18 | 1919 | 11         | 98  |
| 9TD10-33 | 226        | 1056740                                 | 1.0  | 8.625                                   | 0.6 | 5.309                                  | 3.1 | 0.332                                  | 3.1           | 0.98          | 1848   | 49   | 1870  | 27 | 1895 | 10         | 98  |
| 9TD10-34 | 205        | 1085292                                 | 0.9  | 7.796                                   | 0.4 | 6.716                                  | 3.5 | 0.380                                  | 3.5           | 0.99          | 2075   | 62   | 2075  | 31 | 2074 | 7          | 100 |
| 9TD10-35 | 154        | 843716                                  | 1.0  | 8.510                                   | 0.5 | 5.589                                  | 2.4 | 0.345                                  | 2.4           | 0.98          | 1911   | 39   | 1914  | 21 | 1919 | 9          | 100 |
| 9TD10-36 | 52         | 190406                                  | 1.0  | 5.454                                   | 0.8 | 13.264                                 | 2.2 | 0.525                                  | 2.0           | 0.93          | 2719   | 45   | 2699  | 21 | 2684 | 13         | 101 |
| 9TD10-37 | 166        | 470113                                  | 1.0  | 8.584                                   | 0.5 | 5.031                                  | 2.1 | 0.313                                  | 2.0           | 0.97          | 1757   | 31   | 1825  | 18 | 1903 | 8          | 92  |
| 9TD10-38 | 57         | 263945                                  | 1.2  | 8.539                                   | 1.0 | 5.570                                  | 3.0 | 0.345                                  | 2.8           | 0.94          | 1911   | 47   | 1912  | 26 | 1913 | 19         | 100 |
| 9TD10-39 | 406        | 3881941                                 | 0.6  | 8.478                                   | 0.5 | 5.586                                  | 2.8 | 0.344                                  | 2.8           | 0.98          | 1904   | 45   | 1914  | 24 | 1925 | 9          | 99  |
| 9TD10-40 | 84         | 536970                                  | 1.0  | 5.454                                   | 0.6 | 12.846                                 | 1.6 | 0.508                                  | 1.5           | 0.94          | 2649   | 34   | 2668  | 15 | 2683 | 9          | 99  |
| 9TD10-42 | 293        | 1072137                                 | 2.8  | 8.906                                   | 0.3 | 5.001                                  | 2.1 | 0.323                                  | 2.0           | 0.99          | 1805   | 32   | 1820  | 17 | 1837 | 6          | 98  |
| 9TD10-43 | 92         | 812023                                  | 0.5  | 8.555                                   | 1.4 | 5.487                                  | 2.1 | 0.340                                  | 1.6           | 0.75          | 1889   | 26   | 1898  | 18 | 1909 | 25         | 99  |
| 9TD10-44 | 358        | 1151679                                 | 1.2  | 13.335                                  | 1.4 | 1.796                                  | 1.8 | 0.174                                  | 1.1           | 0.64          | 1032   | 11   | 1044  | 12 | 1068 | 27         | 97  |
| 9TD10-45 | 138        | 1267076                                 | 1.2  | 8.872                                   | 0.9 | 4.941                                  | 1.5 | 0.318                                  | 1.2           | 0.80          | 1780   | 19   | 1809  | 13 | 1844 | 16         | 97  |
| 9TD10-46 | 260        | 1281207                                 | 0.8  | 5.417                                   | 0.3 | 12.794                                 | 3.8 | 0.503                                  | 3.8           | 1.00          | 2625   | 83   | 2665  | 36 | 2695 | 5          | 97  |
| 9TD10-47 | 61         | 150508                                  | 0.8  | 7.923                                   | 2.5 | 6.410                                  | 3.2 | 0.368                                  | 2.0           | 0.63          | 2021   | 35   | 2034  | 28 | 2046 | 44         | 99  |
| 9TD10-48 | 479        | 1929583                                 | 2.9  | 8.916                                   | 0.4 | 4.643                                  | 1.2 | 0.300                                  | 1.2           | 0.95          | 1692   | 18   | 1757  | 10 | 1835 | 7          | 92  |
| 9TD10-49 | 177        | 1295795                                 | 0.8  | 8.179                                   | 0.8 | 5.757                                  | 1.7 | 0.342                                  | 1.5           | 0.88          | 1894   | 24   | 1940  | 14 | 1989 | 14         | 95  |
| 9TD10-50 | 180        | 1150102                                 | 1.4  | 8.933                                   | 0.7 | 4.774                                  | 1.6 | 0.309                                  | 1.4           | 0.91          | 1737   | 22   | 1780  | 13 | 1831 | 12         | 95  |
| 9TD10-51 | 297        | 4073626                                 | 1.6  | 5.380                                   | 0.3 | 12.495                                 | 1.5 | 0.488                                  | 1.5           | 0.98          | 2560   | 32   | 2642  | 14 | 2706 | 4          | 95  |

|                   |      |          |      |        |       |        |       |        |      |       |      |     |      |     |      |    |          |
|-------------------|------|----------|------|--------|-------|--------|-------|--------|------|-------|------|-----|------|-----|------|----|----------|
| 9TD10-52          | 364  | 1428107  | 1.2  | 8.803  | 0.4   | 4.863  | 1.1   | 0.310  | 1.0  | 0.93  | 1743 | 15  | 1796 | 9   | 1858 | 7  | 94       |
| 9TD10-53          | 100  | 264669   | 1.1  | 8.733  | 0.7   | 4.967  | 2.3   | 0.315  | 2.2  | 0.95  | 1763 | 34  | 1814 | 19  | 1872 | 13 | 94       |
| 9TD10-54          | 238  | 725817   | 1.7  | 8.573  | 0.5   | 4.997  | 1.9   | 0.311  | 1.8  | 0.96  | 1744 | 28  | 1819 | 16  | 1905 | 10 | 92       |
| 9TD10-55          | 63   | 236082   | 1.3  | 8.746  | 1.6   | 5.023  | 2.4   | 0.319  | 1.8  | 0.75  | 1783 | 28  | 1823 | 20  | 1870 | 28 | 95       |
| 9TD10-56          | 1000 | 3050596  | 15.7 | 8.864  | 0.2   | 4.734  | 2.2   | 0.304  | 2.2  | 1.00  | 1713 | 33  | 1773 | 19  | 1845 | 4  | 93       |
| 9TD10-57          | 51   | 331098   | 0.9  | 7.708  | 1.2   | 6.628  | 2.4   | 0.371  | 2.1  | 0.86  | 2032 | 37  | 2063 | 22  | 2094 | 22 | 97       |
| 9TD10-58          | 87   | 397594   | 1.5  | 5.432  | 0.5   | 12.330 | 1.5   | 0.486  | 1.4  | 0.94  | 2552 | 30  | 2630 | 14  | 2690 | 9  | 95       |
| 9TD10-59          | 151  | 1623539  | 2.3  | 5.494  | 0.4   | 12.331 | 1.3   | 0.491  | 1.2  | 0.96  | 2576 | 26  | 2630 | 12  | 2671 | 6  | 96       |
| 9TD10-60          | 131  | 1170557  | 3.0  | 6.597  | 1.2   | 8.953  | 2.5   | 0.428  | 2.2  | 0.88  | 2298 | 43  | 2333 | 23  | 2364 | 20 | 97       |
| 9TD10-61          | 74   | 284160   | 0.5  | 7.687  | 0.6   | 6.636  | 1.0   | 0.370  | 0.8  | 0.82  | 2029 | 15  | 2064 | 9   | 2099 | 10 | 97       |
| 9TD10-62          | 372  | 1127789  | 1.7  | 13.314 | 0.8   | 1.707  | 1.6   | 0.165  | 1.4  | 0.86  | 984  | 12  | 1011 | 10  | 1071 | 16 | 92       |
| 9TD10-63          | 213  | 1216933  | 0.8  | 8.399  | 0.4   | 5.364  | 1.8   | 0.327  | 1.7  | 0.97  | 1823 | 27  | 1879 | 15  | 1942 | 8  | 94       |
| 9TD10-64          | 393  | 1780166  | 1.0  | 8.650  | 0.4   | 4.819  | 2.9   | 0.302  | 2.8  | 0.99  | 1703 | 42  | 1788 | 24  | 1889 | 7  | 90       |
| 9TD10-65          | 151  | 605111   | 1.8  | 7.740  | 0.6   | 6.447  | 1.5   | 0.362  | 1.4  | 0.92  | 1991 | 24  | 2039 | 14  | 2087 | 11 | 95       |
| 9TD10-66          | 118  | 610968   | 0.8  | 5.412  | 0.5   | 12.796 | 1.8   | 0.502  | 1.7  | 0.97  | 2624 | 37  | 2665 | 17  | 2696 | 8  | 97       |
| 9TD10-67          | 121  | 439701   | 1.4  | 8.883  | 0.9   | 4.872  | 1.8   | 0.314  | 1.5  | 0.85  | 1760 | 23  | 1798 | 15  | 1841 | 17 | 96       |
| 9TD10-68          | 281  | 1732460  | 1.6  | 8.840  | 0.5   | 4.739  | 1.4   | 0.304  | 1.3  | 0.93  | 1710 | 20  | 1774 | 12  | 1850 | 10 | 92       |
| 9TD10-69          | 173  | 179364   | 0.5  | 8.781  | 0.6   | 4.812  | 1.8   | 0.306  | 1.7  | 0.94  | 1723 | 25  | 1787 | 15  | 1862 | 11 | 93       |
| 9TD10-70          | 49   | 256796   | 0.9  | 8.709  | 2.3   | 4.955  | 3.0   | 0.313  | 1.9  | 0.63  | 1755 | 29  | 1812 | 25  | 1877 | 42 | 93       |
| 9TD10-71          | 490  | 2842093  | 1.3  | 8.682  | 0.4   | 5.150  | 1.5   | 0.324  | 1.5  | 0.97  | 1811 | 24  | 1844 | 13  | 1883 | 7  | 96       |
| 9TD10-72          | 192  | 953122   | 2.4  | 8.471  | 0.5   | 5.386  | 1.7   | 0.331  | 1.6  | 0.95  | 1843 | 26  | 1883 | 15  | 1927 | 9  | 96       |
| 9TD10-73          | 103  | 1353125  | 0.7  | 5.277  | 0.5   | 13.175 | 1.6   | 0.504  | 1.5  | 0.95  | 2632 | 32  | 2692 | 15  | 2738 | 8  | 96       |
| 9TD10-74          | 152  | 585252   | 12.1 | 8.570  | 0.9   | 5.177  | 1.9   | 0.322  | 1.7  | 0.89  | 1798 | 27  | 1849 | 16  | 1906 | 15 | 94       |
| 9TD10-75          | 147  | 1084222  | 1.5  | 4.201  | 0.5   | 18.790 | 1.1   | 0.572  | 0.9  | 0.87  | 2918 | 22  | 3031 | 10  | 3107 | 8  | 94       |
| 9TD10-76          | 106  | 789923   | 2.0  | 8.829  | 1.1   | 4.856  | 2.2   | 0.311  | 1.9  | 0.87  | 1745 | 29  | 1795 | 18  | 1852 | 20 | 94       |
| 9TD10-77          | 212  | 1229711  | 2.4  | 6.069  | 0.6   | 9.890  | 2.3   | 0.435  | 2.2  | 0.97  | 2330 | 43  | 2425 | 21  | 2505 | 10 | 93       |
| 9TD10-78          | 71   | 264380   | 0.7  | 8.513  | 1.7   | 5.217  | 2.3   | 0.322  | 1.6  | 0.68  | 1800 | 25  | 1855 | 20  | 1918 | 30 | 94       |
| 9TD10-80          | 63   | 673151   | 0.7  | 5.392  | 0.5   | 13.267 | 2.5   | 0.519  | 2.5  | 0.98  | 2694 | 55  | 2699 | 24  | 2702 | 9  | 100      |
| 9TD10-81          | 47   | 136037   | 1.1  | 8.770  | 2.3   | 4.852  | 2.8   | 0.309  | 1.6  | 0.58  | 1734 | 25  | 1794 | 24  | 1865 | 41 | 93       |
| 9TD10-82          | 58   | 217292   | 1.0  | 8.936  | 2.0   | 4.815  | 2.9   | 0.312  | 2.1  | 0.72  | 1751 | 32  | 1788 | 24  | 1831 | 36 | 96       |
| 9TD10-83          | 481  | 2059421  | 2.8  | 8.768  | 0.6   | 5.041  | 1.6   | 0.321  | 1.5  | 0.93  | 1793 | 24  | 1826 | 14  | 1865 | 11 | 96       |
| 9TD10-84          | 63   | 426400   | 1.0  | 8.964  | 1.3   | 4.609  | 2.4   | 0.300  | 2.0  | 0.84  | 1689 | 30  | 1751 | 20  | 1825 | 24 | 93       |
| 9TD10-85          | 360  | 1362891  | 0.8  | 7.780  | 0.3   | 6.339  | 2.0   | 0.358  | 2.0  | 0.99  | 1971 | 34  | 2024 | 18  | 2078 | 5  | 95       |
| 9TD10-86          | 175  | 569468   | 1.7  | 8.861  | 0.5   | 4.992  | 2.6   | 0.321  | 2.5  | 0.98  | 1794 | 40  | 1818 | 22  | 1846 | 9  | 97       |
| 9TD10-87          | 136  | 326433   | 0.8  | 8.642  | 1.2   | 5.165  | 2.0   | 0.324  | 1.6  | 0.80  | 1808 | 26  | 1847 | 17  | 1891 | 22 | 96       |
| 9TD10-88          | 294  | 1074980  | 1.8  | 8.479  | 0.4   | 5.305  | 2.1   | 0.326  | 2.1  | 0.98  | 1820 | 33  | 1870 | 18  | 1925 | 7  | 95       |
| 9TD10-89          | 556  | 4603908  | 3.9  | 8.689  | 0.3   | 5.099  | 2.4   | 0.321  | 2.4  | 0.99  | 1796 | 38  | 1836 | 21  | 1881 | 6  | 95       |
| 9TD10-90          | 69   | 395245   | 0.6  | 5.273  | 0.5   | 13.292 | 1.6   | 0.508  | 1.5  | 0.95  | 2649 | 32  | 2701 | 15  | 2739 | 8  | 97       |
| 9TD10-91          | 182  | 929915   | 1.6  | 8.596  | 0.6   | 5.335  | 3.8   | 0.333  | 3.8  | 0.99  | 1851 | 60  | 1875 | 32  | 1901 | 11 | 97       |
| 9TD10-92          | 338  | 1362500  | 2.5  | 9.068  | 0.4   | 4.678  | 1.7   | 0.308  | 1.7  | 0.97  | 1729 | 25  | 1763 | 14  | 1804 | 8  | 96       |
| 9TD10-93          | 137  | 409309   | 0.8  | 7.810  | 1.1   | 6.509  | 2.8   | 0.369  | 2.6  | 0.92  | 2023 | 45  | 2047 | 25  | 2071 | 19 | 98       |
| 9TD10-94          | 82   | 437386   | 1.4  | 7.031  | 0.8   | 7.856  | 1.7   | 0.401  | 1.5  | 0.87  | 2172 | 27  | 2215 | 15  | 2254 | 14 | 96       |
| 9TD10-95          | 261  | 1087062  | 1.2  | 8.884  | 0.4   | 4.919  | 1.4   | 0.317  | 1.3  | 0.95  | 1775 | 21  | 1805 | 12  | 1841 | 8  | 96       |
| 9TD10-96          | 200  | 1163998  | 2.3  | 8.794  | 0.7   | 5.187  | 1.6   | 0.331  | 1.5  | 0.91  | 1842 | 23  | 1850 | 14  | 1860 | 12 | 99       |
| 9TD10-97          | 800  | 3546887  | 2.2  | 8.882  | 0.3   | 4.853  | 1.2   | 0.313  | 1.1  | 0.96  | 1754 | 18  | 1794 | 10  | 1842 | 6  | 95       |
| 9TD10-98          | 380  | 514158   | 1.0  | 13.448 | 1.5   | 1.764  | 2.1   | 0.172  | 1.6  | 0.73  | 1024 | 15  | 1032 | 14  | 1051 | 30 | 97       |
| 9TD10-99          | 416  | 1331909  | 2.4  | 8.938  | 0.5   | 4.788  | 2.6   | 0.310  | 2.6  | 0.98  | 1743 | 39  | 1783 | 22  | 1830 | 8  | 95       |
| 9TD10-100         | 146  | 798553   | 0.3  | 5.456  | 0.3   | 12.755 | 1.9   | 0.505  | 1.9  | 0.99  | 2634 | 41  | 2662 | 18  | 2683 | 4  | 98       |
| Rejected analyses |      |          |      |        |       |        |       |        |      |       |      |     |      |     |      |    |          |
| 9TD10-31          | 1285 | 11150007 | 9.7  | 8.794  | 0.34  | 4.457  | 3.7   | 0.2843 | 3.7  | 0.996 | 1613 | 53  | 1723 | 31  | NA   | NA | Disc.    |
| 9TD10-41          | 696  | 350849.3 | 1.9  | 8.939  | 0.821 | 4.076  | 13.7  | 0.2643 | 13.7 | 0.998 | 1512 | 184 | 1650 | 112 | NA   | NA | High 204 |
| 9TD10-79          | 140  | 706482.9 | 1.4  | 13.591 | 1.868 | 1.568  | 2.402 | 0.1546 | 1.51 | 0.628 | 927  | 13  | 958  | 15  | NA   | NA | Disc.    |

06PL13 - Phi Kappa Formation, Basin Gulch Member, 11T 0719287E 4859218N NAD 27

| Spot     | Isotopic ratios |                   |      |                   |                   |                   |      |                   |     |                   | Isotopic ages    |                   |                  |    |      | Conc.<br>% |                   |
|----------|-----------------|-------------------|------|-------------------|-------------------|-------------------|------|-------------------|-----|-------------------|------------------|-------------------|------------------|----|------|------------|-------------------|
|          | U               | <sup>206</sup> Pb | Th/U | <sup>206</sup> Pb | <sup>207</sup> Pb | <sup>206</sup> Pb | Corr | <sup>206</sup> Pb | ±   | <sup>207</sup> Pb | ±                | <sup>207</sup> Pb | ±                | %  |      |            |                   |
|          | (ppm)           | <sup>204</sup> Pb |      | <sup>207</sup> Pb | % ±               | <sup>235</sup> U  | % ±  | <sup>238</sup> U  | % ± | Coeff             | <sup>238</sup> U | (Ma)              | <sup>235</sup> U |    | (Ma) |            | <sup>206</sup> Pb |
| 6PL13-1  | 70              | 62288             | 1.0  | 8.851             | 0.5               | 5.188             | 3.3  | 0.333             | 3.3 | 0.99              | 1853             | 53                | 1851             | 29 | 1848 | 10         | 100               |
| 6PL13-2  | 102             | 119229            | 1.4  | 8.887             | 0.5               | 5.201             | 1.5  | 0.335             | 1.4 | 0.93              | 1863             | 23                | 1853             | 13 | 1841 | 10         | 101               |
| 6PL13-3  | 79              | 120911            | 0.8  | 8.439             | 0.5               | 5.766             | 1.4  | 0.353             | 1.3 | 0.94              | 1948             | 22                | 1941             | 12 | 1934 | 8          | 101               |
| 6PL13-4  | 25              | 15924             | 0.9  | 8.887             | 1.6               | 5.330             | 2.2  | 0.344             | 1.5 | 0.68              | 1904             | 25                | 1874             | 19 | 1841 | 29         | 103               |
| 6PL13-5  | 54              | 35946             | 2.5  | 8.728             | 1.2               | 5.311             | 1.7  | 0.336             | 1.2 | 0.70              | 1868             | 19                | 1871             | 14 | 1873 | 21         | 100               |
| 6PL13-6  | 38              | 89377             | 0.7  | 8.918             | 2.2               | 5.144             | 2.8  | 0.333             | 1.8 | 0.64              | 1851             | 29                | 1843             | 24 | 1834 | 39         | 101               |
| 6PL13-7  | 52              | 72853             | 1.4  | 7.033             | 1.0               | 8.021             | 4.3  | 0.409             | 4.2 | 0.97              | 2211             | 78                | 2233             | 39 | 2254 | 18         | 98                |
| 6PL13-8  | 65              | 127420            | 1.8  | 8.952             | 1.2               | 5.106             | 1.9  | 0.331             | 1.5 | 0.78              | 1846             | 24                | 1837             | 17 | 1827 | 22         | 101               |
| 6PL13-9  | 115             | 104379            | 1.4  | 8.844             | 0.6               | 5.187             | 1.5  | 0.333             | 1.4 | 0.91              | 1851             | 22                | 1850             | 13 | 1849 | 12         | 100               |
| 6PL13-10 | 174             | 244094            | 2.5  | 8.691             | 0.4               | 5.370             | 1.2  | 0.339             | 1.1 | 0.93              | 1879             | 18                | 1880             | 10 | 1881 | 8          | 100               |
| 6PL13-11 | 53              | 169435            | 0.5  | 5.391             | 0.6               | 13.028            | 1.2  | 0.509             | 1.0 | 0.85              | 2654             | 22                | 2682             | 11 | 2703 | 10         | 98                |
| 6PL13-12 | 38              | 23286             | 0.5  | 8.806             | 1.8               | 5.265             | 2.3  | 0.336             | 1.5 | 0.63              | 1869             | 24                | 1863             | 20 | 1857 | 33         | 101               |
| 6PL13-13 | 43              | 41415             | 1.6  | 8.755             | 1.4               | 5.373             | 1.8  | 0.341             | 1.2 | 0.66              | 1892             | 20                | 1881             | 15 | 1868 | 24         | 101               |
| 6PL13-14 | 70              | 59437             | 1.3  | 8.850             | 1.1               | 5.164             | 1.5  | 0.331             | 1.0 | 0.68              | 1845             | 17                | 1847             | 13 | 1848 | 20         | 100               |
| 6PL13-15 | 112             | 204751            | 1.2  | 6.852             | 0.7               | 8.374             | 1.7  | 0.416             | 1.6 | 0.92              | 2243             | 29                | 2272             | 15 | 2299 | 11         | 98                |
| 6PL13-16 | 239             | 622434            | 1.8  | 8.859             | 0.3               | 5.185             | 1.2  | 0.333             | 1.2 | 0.98              | 1854             | 20                | 1850             | 11 | 1846 | 5          | 100               |
| 6PL13-17 | 131             | 185946            | 1.2  | 8.714             | 0.4               | 5.394             | 1.3  | 0.341             | 1.2 | 0.95              | 1891             | 19                | 1884             | 11 | 1876 | 7          | 101               |
| 6PL13-18 | 40              | 96183             | 2.8  | 4.835             | 0.7               | 15.873            | 1.5  | 0.557             | 1.3 | 0.88              | 2853             | 31                | 2869             | 14 | 2881 | 12         | 99                |
| 6PL13-19 | 40              | 95394             | 0.4  | 5.437             | 0.5               | 13.098            | 1.7  | 0.517             | 1.6 | 0.96              | 2684             | 36                | 2687             | 16 | 2688 | 8          | 100               |
| 6PL13-20 | 91              | 99065             | 2.2  | 8.916             | 0.7               | 5.160             | 1.3  | 0.334             | 1.1 | 0.86              | 1856             | 19                | 1846             | 11 | 1835 | 12         | 101               |
| 6PL13-21 | 111             | 163619            | 1.7  | 5.812             | 0.2               | 11.807            | 1.3  | 0.498             | 1.3 | 0.99              | 2604             | 28                | 2589             | 12 | 2578 | 3          | 101               |
| 6PL13-22 | 149             | 185195            | 1.2  | 8.837             | 0.6               | 5.150             | 1.5  | 0.330             | 1.4 | 0.93              | 1839             | 22                | 1844             | 13 | 1851 | 10         | 99                |
| 6PL13-23 | 42              | 41866             | 1.0  | 8.681             | 1.2               | 5.392             | 2.0  | 0.340             | 1.6 | 0.80              | 1884             | 26                | 1884             | 17 | 1883 | 22         | 100               |
| 6PL13-24 | 55              | 92065             | 2.0  | 6.888             | 3.3               | 8.250             | 7.9  | 0.412             | 7.2 | 0.91              | 2225             | 136               | 2259             | 72 | 2290 | 57         | 97                |
| 6PL13-25 | 39              | 56700             | 0.6  | 8.861             | 1.8               | 5.195             | 2.4  | 0.334             | 1.5 | 0.63              | 1857             | 24                | 1852             | 20 | 1846 | 33         | 101               |
| 6PL13-26 | 213             | 447914            | 2.1  | 8.858             | 0.3               | 5.242             | 1.1  | 0.337             | 1.0 | 0.97              | 1871             | 17                | 1859             | 9  | 1847 | 5          | 101               |
| 6PL13-27 | 206             | 282459            | 0.9  | 7.819             | 0.5               | 6.508             | 3.6  | 0.369             | 3.6 | 0.99              | 2025             | 62                | 2047             | 32 | 2069 | 8          | 98                |
| 6PL13-28 | 210             | 262874            | 2.1  | 8.876             | 0.5               | 5.184             | 1.5  | 0.334             | 1.4 | 0.94              | 1856             | 22                | 1850             | 13 | 1843 | 9          | 101               |
| 6PL13-29 | 41              | 49410             | 0.6  | 7.781             | 1.0               | 6.826             | 3.0  | 0.385             | 2.9 | 0.95              | 2101             | 52                | 2089             | 27 | 2078 | 17         | 101               |
| 6PL13-30 | 57              | 74270             | 1.0  | 9.308             | 1.8               | 4.462             | 3.5  | 0.301             | 3.0 | 0.85              | 1697             | 44                | 1724             | 29 | 1756 | 33         | 97                |
| 6PL13-31 | 122             | 82530             | 1.4  | 8.770             | 0.5               | 5.292             | 1.1  | 0.337             | 1.0 | 0.89              | 1870             | 16                | 1868             | 10 | 1865 | 10         | 100               |
| 6PL13-32 | 43              | 108923            | 0.8  | 5.462             | 1.0               | 13.155            | 1.7  | 0.521             | 1.4 | 0.83              | 2704             | 32                | 2691             | 16 | 2681 | 16         | 101               |
| 6PL13-33 | 114             | 97444             | 5.5  | 8.496             | 0.4               | 5.720             | 0.9  | 0.352             | 0.8 | 0.90              | 1946             | 14                | 1934             | 8  | 1922 | 7          | 101               |
| 6PL13-34 | 159             | 244701            | 1.7  | 8.579             | 0.7               | 5.579             | 1.4  | 0.347             | 1.2 | 0.86              | 1921             | 21                | 1913             | 12 | 1904 | 13         | 101               |
| 6PL13-35 | 165             | 62206             | 2.0  | 8.923             | 0.4               | 4.767             | 8.1  | 0.308             | 8.1 | 1.00              | 1733             | 124               | 1779             | 68 | 1833 | 7          | 95                |
| 6PL13-36 | 178             | 269632            | 2.9  | 8.911             | 0.2               | 5.057             | 1.8  | 0.327             | 1.8 | 0.99              | 1823             | 29                | 1829             | 15 | 1836 | 4          | 99                |
| 6PL13-37 | 59              | 75026             | 1.5  | 8.940             | 1.2               | 5.084             | 1.9  | 0.330             | 1.5 | 0.76              | 1837             | 23                | 1833             | 16 | 1830 | 22         | 100               |
| 6PL13-38 | 150             | 60886             | 1.4  | 13.699            | 1.2               | 1.749             | 1.8  | 0.174             | 1.4 | 0.77              | 1033             | 14                | 1027             | 12 | 1014 | 24         | 102               |
| 6PL13-39 | 43              | 74558             | 0.7  | 8.889             | 1.2               | 5.190             | 2.1  | 0.335             | 1.7 | 0.82              | 1861             | 28                | 1851             | 18 | 1840 | 22         | 101               |
| 6PL13-40 | 62              | 81604             | 1.0  | 7.912             | 1.1               | 6.621             | 1.3  | 0.380             | 0.8 | 0.60              | 2076             | 14                | 2062             | 12 | 2048 | 19         | 101               |
| 6PL13-41 | 101             | 25552             | 1.2  | 8.757             | 0.5               | 5.306             | 1.4  | 0.337             | 1.3 | 0.94              | 1872             | 22                | 1870             | 12 | 1867 | 9          | 100               |
| 6PL13-42 | 75              | 133083            | 0.9  | 8.954             | 0.6               | 5.013             | 1.1  | 0.326             | 0.9 | 0.84              | 1817             | 15                | 1821             | 10 | 1827 | 11         | 99                |
| 6PL13-43 | 40              | 41788             | 0.7  | 8.585             | 1.5               | 5.735             | 1.9  | 0.357             | 1.3 | 0.65              | 1968             | 21                | 1937             | 17 | 1903 | 27         | 103               |
| 6PL13-44 | 55              | 51865             | 0.7  | 5.362             | 0.7               | 14.112            | 1.5  | 0.549             | 1.4 | 0.88              | 2820             | 31                | 2757             | 15 | 2711 | 12         | 104               |
| 6PL13-45 | 25              | 14819             | 0.7  | 5.538             | 0.9               | 12.256            | 3.5  | 0.492             | 3.4 | 0.97              | 2580             | 72                | 2624             | 33 | 2658 | 15         | 97                |
| 6PL13-46 | 33              | 18019             | 1.9  | 8.925             | 2.1               | 5.055             | 2.4  | 0.327             | 1.2 | 0.50              | 1825             | 19                | 1829             | 20 | 1833 | 37         | 100               |
| 6PL13-47 | 116             | 465318            | 1.2  | 8.631             | 0.7               | 5.536             | 2.3  | 0.347             | 2.2 | 0.95              | 1918             | 37                | 1906             | 20 | 1893 | 13         | 101               |
| 6PL13-48 | 50              | 42221             | 1.1  | 8.964             | 1.0               | 5.034             | 1.7  | 0.327             | 1.4 | 0.81              | 1825             | 22                | 1825             | 14 | 1825 | 18         | 100               |
| 6PL13-49 | 46              | 52243             | 1.4  | 8.505             | 0.9               | 5.649             | 3.6  | 0.348             | 3.5 | 0.97              | 1927             | 59                | 1924             | 31 | 1920 | 16         | 100               |

|                   |     |        |     |       |     |        |      |        |      |      |      |      |      |     |      |    |           |
|-------------------|-----|--------|-----|-------|-----|--------|------|--------|------|------|------|------|------|-----|------|----|-----------|
| 6PL13-51          | 45  | 49443  | 0.6 | 7.815 | 1.0 | 6.825  | 1.7  | 0.387  | 1.4  | 0.82 | 2108 | 25   | 2089 | 15  | 2070 | 17 | 102       |
| 6PL13-52          | 92  | 83924  | 1.6 | 8.849 | 1.0 | 5.175  | 1.9  | 0.332  | 1.6  | 0.84 | 1849 | 26   | 1848 | 16  | 1848 | 19 | 100       |
| 6PL13-53          | 235 | 171409 | 8.8 | 8.906 | 0.4 | 5.137  | 1.3  | 0.332  | 1.3  | 0.96 | 1847 | 20   | 1842 | 11  | 1837 | 6  | 101       |
| 6PL13-54          | 112 | 229029 | 1.3 | 7.771 | 0.3 | 6.816  | 1.5  | 0.384  | 1.5  | 0.98 | 2096 | 27   | 2088 | 13  | 2080 | 6  | 101       |
| 6PL13-55          | 112 | 123564 | 1.3 | 8.460 | 0.3 | 5.578  | 1.6  | 0.342  | 1.6  | 0.98 | 1897 | 26   | 1913 | 14  | 1929 | 6  | 98        |
| 6PL13-57          | 75  | 56257  | 1.7 | 8.839 | 0.9 | 5.261  | 2.0  | 0.337  | 1.8  | 0.90 | 1873 | 29   | 1863 | 17  | 1850 | 16 | 101       |
| 6PL13-58          | 59  | 130899 | 1.1 | 8.947 | 1.2 | 5.043  | 1.4  | 0.327  | 0.7  | 0.53 | 1825 | 12   | 1827 | 12  | 1828 | 21 | 100       |
| 6PL13-59          | 117 | 118981 | 1.4 | 8.722 | 0.7 | 5.374  | 1.5  | 0.340  | 1.3  | 0.88 | 1886 | 21   | 1881 | 13  | 1875 | 13 | 101       |
| 6PL13-60          | 494 | 157997 | 1.7 | 5.410 | 0.3 | 12.214 | 1.9  | 0.479  | 1.9  | 0.99 | 2524 | 40   | 2621 | 18  | 2697 | 5  | 94        |
| 6PL13-61          | 46  | 38275  | 1.0 | 8.854 | 1.0 | 5.158  | 2.1  | 0.331  | 1.9  | 0.88 | 1844 | 30   | 1846 | 18  | 1847 | 19 | 100       |
| 6PL13-62          | 166 | 119770 | 0.8 | 5.904 | 0.4 | 10.297 | 1.3  | 0.441  | 1.2  | 0.96 | 2355 | 24   | 2462 | 12  | 2552 | 6  | 92        |
| 6PL13-63          | 144 | 177706 | 1.9 | 8.767 | 0.5 | 5.394  | 1.5  | 0.343  | 1.4  | 0.95 | 1901 | 23   | 1884 | 13  | 1865 | 8  | 102       |
| 6PL13-65          | 61  | 75623  | 1.3 | 7.724 | 1.0 | 6.878  | 1.5  | 0.385  | 1.1  | 0.73 | 2101 | 20   | 2096 | 14  | 2091 | 18 | 100       |
| 6PL13-66          | 150 | 201198 | 1.3 | 7.775 | 0.3 | 6.914  | 0.8  | 0.390  | 0.7  | 0.90 | 2122 | 13   | 2100 | 7   | 2079 | 6  | 102       |
| 6PL13-67          | 97  | 209924 | 1.2 | 8.517 | 0.7 | 5.666  | 1.0  | 0.350  | 0.8  | 0.74 | 1935 | 13   | 1926 | 9   | 1917 | 13 | 101       |
| 6PL13-68          | 177 | 232728 | 1.3 | 8.859 | 0.4 | 5.208  | 1.5  | 0.335  | 1.5  | 0.97 | 1861 | 24   | 1854 | 13  | 1846 | 7  | 101       |
| 6PL13-69          | 54  | 135164 | 1.0 | 5.405 | 0.3 | 13.371 | 1.2  | 0.524  | 1.2  | 0.97 | 2717 | 26   | 2706 | 11  | 2698 | 5  | 101       |
| 6PL13-70          | 79  | 111679 | 0.5 | 5.339 | 0.6 | 13.611 | 1.7  | 0.527  | 1.5  | 0.93 | 2729 | 34   | 2723 | 16  | 2719 | 10 | 100       |
| 6PL13-71          | 59  | 58079  | 1.4 | 8.522 | 1.0 | 5.737  | 2.4  | 0.355  | 2.2  | 0.91 | 1956 | 37   | 1937 | 21  | 1916 | 18 | 102       |
| 6PL13-72          | 125 | 495056 | 1.2 | 5.927 | 0.5 | 11.196 | 1.5  | 0.481  | 1.4  | 0.95 | 2533 | 30   | 2540 | 14  | 2545 | 8  | 100       |
| 6PL13-73          | 317 | 143609 | 1.9 | 5.725 | 0.1 | 12.156 | 0.8  | 0.505  | 0.8  | 0.99 | 2634 | 17   | 2616 | 8   | 2603 | 2  | 101       |
| 6PL13-74          | 32  | 28369  | 1.1 | 8.566 | 1.3 | 5.610  | 1.9  | 0.349  | 1.4  | 0.74 | 1927 | 24   | 1918 | 17  | 1907 | 23 | 101       |
| 6PL13-75          | 45  | 88205  | 0.6 | 5.362 | 0.5 | 13.509 | 1.1  | 0.525  | 0.9  | 0.87 | 2722 | 21   | 2716 | 10  | 2711 | 9  | 100       |
| 6PL13-77          | 75  | 92103  | 1.3 | 8.475 | 0.8 | 5.700  | 1.2  | 0.350  | 0.9  | 0.72 | 1936 | 14   | 1931 | 10  | 1926 | 15 | 101       |
| 6PL13-78          | 107 | 187510 | 1.9 | 8.678 | 0.6 | 5.440  | 0.9  | 0.342  | 0.7  | 0.73 | 1898 | 11   | 1891 | 8   | 1884 | 11 | 101       |
| 6PL13-79          | 26  | 31529  | 0.5 | 8.051 | 2.1 | 6.255  | 2.7  | 0.365  | 1.6  | 0.61 | 2007 | 28   | 2012 | 23  | 2018 | 38 | 99        |
| 6PL13-80          | 258 | 334650 | 2.1 | 8.854 | 0.3 | 5.180  | 1.0  | 0.333  | 0.9  | 0.95 | 1851 | 15   | 1849 | 8   | 1847 | 5  | 100       |
| 6PL13-81          | 56  | 73403  | 1.4 | 8.542 | 0.9 | 5.533  | 1.5  | 0.343  | 1.2  | 0.81 | 1900 | 19   | 1906 | 13  | 1912 | 16 | 99        |
| 6PL13-82          | 164 | 96125  | 0.5 | 8.781 | 0.3 | 5.309  | 1.1  | 0.338  | 1.1  | 0.95 | 1878 | 17   | 1870 | 9   | 1862 | 6  | 101       |
| 6PL13-83          | 73  | 95180  | 1.4 | 8.860 | 0.7 | 5.150  | 1.6  | 0.331  | 1.4  | 0.88 | 1843 | 22   | 1844 | 13  | 1846 | 13 | 100       |
| 6PL13-84          | 61  | 46779  | 1.1 | 8.651 | 0.8 | 5.477  | 1.6  | 0.344  | 1.4  | 0.85 | 1904 | 23   | 1897 | 14  | 1889 | 15 | 101       |
| 6PL13-85          | 76  | 65086  | 7.1 | 8.535 | 1.1 | 5.655  | 1.4  | 0.350  | 0.8  | 0.59 | 1935 | 13   | 1925 | 12  | 1913 | 20 | 101       |
| 6PL13-86          | 34  | 35731  | 0.6 | 8.264 | 1.8 | 5.923  | 2.2  | 0.355  | 1.3  | 0.58 | 1958 | 21   | 1965 | 19  | 1971 | 31 | 99        |
| 6PL13-88          | 69  | 59721  | 1.1 | 8.525 | 0.7 | 5.784  | 1.6  | 0.358  | 1.5  | 0.92 | 1971 | 26   | 1944 | 14  | 1916 | 12 | 103       |
| 6PL13-89          | 194 | 245557 | 1.7 | 8.489 | 0.3 | 5.678  | 1.0  | 0.350  | 1.0  | 0.94 | 1932 | 16   | 1928 | 9   | 1923 | 6  | 100       |
| 6PL13-90          | 58  | 45640  | 1.3 | 8.883 | 1.2 | 5.119  | 1.8  | 0.330  | 1.3  | 0.75 | 1838 | 21   | 1839 | 15  | 1841 | 21 | 100       |
| 6PL13-91          | 65  | 86425  | 0.7 | 7.797 | 0.9 | 6.696  | 1.4  | 0.379  | 1.1  | 0.80 | 2070 | 20   | 2072 | 13  | 2074 | 15 | 100       |
| 6PL13-92          | 80  | 104314 | 0.8 | 8.141 | 0.7 | 5.961  | 2.5  | 0.352  | 2.4  | 0.96 | 1944 | 40   | 1970 | 21  | 1998 | 12 | 97        |
| 6PL13-93          | 182 | 225425 | 1.5 | 5.906 | 0.2 | 11.525 | 1.5  | 0.494  | 1.5  | 0.99 | 2587 | 32   | 2567 | 14  | 2551 | 3  | 101       |
| 6PL13-94          | 126 | 258917 | 1.7 | 8.888 | 0.6 | 5.025  | 1.2  | 0.324  | 1.0  | 0.87 | 1809 | 16   | 1824 | 10  | 1840 | 10 | 98        |
| 6PL13-95          | 20  | 31011  | 0.8 | 7.724 | 2.2 | 6.909  | 3.0  | 0.387  | 2.0  | 0.69 | 2109 | 37   | 2100 | 26  | 2091 | 38 | 101       |
| 6PL13-96          | 55  | 123162 | 0.7 | 5.349 | 0.3 | 13.683 | 1.3  | 0.531  | 1.3  | 0.97 | 2745 | 29   | 2728 | 13  | 2715 | 6  | 101       |
| 6PL13-97          | 63  | 103705 | 1.1 | 8.836 | 1.3 | 5.189  | 2.0  | 0.333  | 1.4  | 0.74 | 1851 | 23   | 1851 | 17  | 1851 | 24 | 100       |
| 6PL13-98          | 94  | 257008 | 2.4 | 8.839 | 0.7 | 5.189  | 1.2  | 0.333  | 1.0  | 0.81 | 1851 | 16   | 1851 | 10  | 1850 | 13 | 100       |
| 6PL13-99          | 78  | 108632 | 1.8 | 7.689 | 0.2 | 7.040  | 1.2  | 0.393  | 1.2  | 0.98 | 2135 | 22   | 2116 | 11  | 2099 | 4  | 102       |
| 6PL13-100         | 67  | 113328 | 1.7 | 4.805 | 0.4 | 16.368 | 1.2  | 0.570  | 1.1  | 0.94 | 2910 | 27   | 2899 | 12  | 2891 | 6  | 101       |
| Rejected analyses |     |        |     |       |     |        |      |        |      |      |      |      |      |     |      |    |           |
| 6PL13-76          | 312 | 89827  | 2.9 | 5.082 | 0.2 | 12.962 | 1.8  | 0.4778 | 1.8  | 0.99 | 2518 | 37   | 2677 | 17  | 2800 | 4  | 90        |
| 6PL13-50          | 45  | 5283   | 2.1 | 4.790 | 7.3 | 13.131 | 50.4 | 0.4562 | 49.8 | 0.99 | 2423 | 1015 | 2689 | 515 | NA   | NA | High 204  |
| 6PL13-56          | 179 | 139477 | 2.2 | 7.857 | 0.6 | 4.969  | 24.3 | 0.2832 | 24.3 | 1.00 | 1607 | 346  | 1814 | 208 | NA   | NA | Disc.     |
| 6PL13-64          | 142 | 173143 | 0.5 | 8.506 | 0.8 | 6.201  | 7.6  | 0.3825 | 7.6  | 0.99 | 2088 | 135  | 2005 | 67  | NA   | NA | Rev disc. |
| 6PL13-87          | 41  | 19567  | 0.9 | 14.04 | 5.2 | 1.686  | 5.6  | 0.1717 | 1.9  | 0.34 | 1021 | 18   | 1003 | 36  | NA   | NA | Rev disc. |

02TD10 - Milligen Formation, Cait Quartzite, 11T 0726389E 4840065N NAD 27

| Spot      | U<br>(ppm) | Isotopic ratios                         |      |   |     |  |     |  | Isotopic ages |               |  |  |   |    |      | Conc.<br>% |     |
|-----------|------------|---|------|---|-----|--|-----|--|---------------|---------------|--|--|---|----|------|------------|-----|
|           |            | <sup>206</sup> Pb/<br><sup>204</sup> Pb | Th/U | <sup>206</sup> Pb/<br><sup>207</sup> Pb | % ± | <sup>207</sup> Pb/<br><sup>235</sup> U | % ± | <sup>206</sup> Pb/<br><sup>238</sup> U | % ±           | Corr<br>Coeff | <sup>206</sup> Pb ±<br><sup>238</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>235</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>206</sup> Pb (Ma) |    |      |            |     |
| 02TD10-1  | 92         | 321362                                  | 1.2  | 8.921                                   | 0.9 | 5.006                                  | 3.3 | 0.324                                  | 3.2           | 0.96          | 1809   | 50   | 1820  | 28 | 1834 | 16         | 99  |
| 02TD10-2  | 179        | 1144496                                 | 1.7  | 8.890                                   | 0.7 | 4.996                                  | 2.2 | 0.322                                  | 2.1           | 0.95          | 1800   | 33   | 1819  | 19 | 1840 | 13         | 98  |
| 02TD10-3  | 28         | 105439                                  | 0.6  | 8.718                                   | 3.1 | 5.139                                  | 4.9 | 0.325                                  | 3.8           | 0.78          | 1814   | 60   | 1843  | 41 | 1875 | 55         | 97  |
| 02TD10-4  | 74         | 375292                                  | 0.5  | 8.851                                   | 1.0 | 4.964                                  | 2.1 | 0.319                                  | 1.8           | 0.88          | 1783   | 28   | 1813  | 18 | 1848 | 18         | 96  |
| 02TD10-5  | 82         | 308852                                  | 0.9  | 8.471                                   | 1.4 | 5.534                                  | 2.4 | 0.340                                  | 1.9           | 0.82          | 1887   | 31   | 1906  | 20 | 1927 | 24         | 98  |
| 02TD10-6  | 112        | 453544                                  | 1.5  | 8.554                                   | 0.8 | 5.462                                  | 1.2 | 0.339                                  | 0.9           | 0.74          | 1881   | 15   | 1895  | 10 | 1909 | 15         | 99  |
| 02TD10-7  | 402        | 1736808                                 | 6.7  | 8.964                                   | 0.4 | 4.949                                  | 1.9 | 0.322                                  | 1.9           | 0.98          | 1798   | 30   | 1811  | 16 | 1825 | 8          | 99  |
| 02TD10-8  | 175        | 814274                                  | 1.3  | 8.938                                   | 0.4 | 4.961                                  | 1.3 | 0.322                                  | 1.2           | 0.95          | 1798   | 19   | 1813  | 11 | 1830 | 8          | 98  |
| 02TD10-9  | 105        | 574787                                  | 1.8  | 7.644                                   | 0.8 | 6.684                                  | 2.5 | 0.371                                  | 2.3           | 0.94          | 2032   | 41   | 2071  | 22 | 2109 | 15         | 96  |
| 02TD10-10 | 55         | 302923                                  | 1.2  | 5.349                                   | 0.6 | 13.163                                 | 1.2 | 0.511                                  | 1.1           | 0.88          | 2659   | 23   | 2691  | 12 | 2716 | 10         | 98  |
| 02TD10-11 | 76         | 308153                                  | 1.0  | 8.936                                   | 1.4 | 4.860                                  | 2.0 | 0.315                                  | 1.5           | 0.72          | 1765   | 22   | 1795  | 17 | 1831 | 25         | 96  |
| 02TD10-12 | 48         | 228946                                  | 1.3  | 7.756                                   | 1.3 | 6.525                                  | 1.9 | 0.367                                  | 1.4           | 0.76          | 2015   | 25   | 2049  | 17 | 2083 | 22         | 97  |
| 02TD10-13 | 136        | 979719                                  | 1.0  | 5.343                                   | 0.4 | 13.094                                 | 1.2 | 0.507                                  | 1.1           | 0.95          | 2646   | 24   | 2686  | 11 | 2717 | 6          | 97  |
| 02TD10-14 | 59         | 222245                                  | 1.8  | 8.868                                   | 1.2 | 4.917                                  | 2.2 | 0.316                                  | 1.8           | 0.83          | 1771   | 28   | 1805  | 18 | 1845 | 22         | 96  |
| 02TD10-15 | 216        | 1227236                                 | 0.9  | 4.451                                   | 0.2 | 17.780                                 | 2.1 | 0.574                                  | 2.0           | 0.99          | 2924   | 48   | 2978  | 20 | 3014 | 4          | 97  |
| 02TD10-16 | 153        | 777103                                  | 2.1  | 7.751                                   | 0.4 | 6.649                                  | 2.3 | 0.374                                  | 2.2           | 0.98          | 2047   | 39   | 2066  | 20 | 2085 | 8          | 98  |
| 02TD10-17 | 36         | 170136                                  | 1.4  | 7.827                                   | 1.6 | 6.612                                  | 2.8 | 0.375                                  | 2.3           | 0.82          | 2054   | 40   | 2061  | 25 | 2067 | 28         | 99  |
| 02TD10-18 | 107        | 564897                                  | 1.5  | 13.585                                  | 3.5 | 1.735                                  | 3.8 | 0.171                                  | 1.5           | 0.40          | 1017   | 14   | 1022  | 25 | 1031 | 71         | 99  |
| 02TD10-19 | 229        | 1064613                                 | 1.4  | 8.841                                   | 0.6 | 5.025                                  | 2.1 | 0.322                                  | 2.0           | 0.96          | 1801   | 31   | 1824  | 18 | 1850 | 10         | 97  |
| 02TD10-20 | 165        | 653381                                  | 7.4  | 8.905                                   | 0.8 | 4.927                                  | 1.6 | 0.318                                  | 1.3           | 0.85          | 1781   | 21   | 1807  | 13 | 1837 | 15         | 97  |
| 02TD10-21 | 83         | 962615                                  | 1.8  | 5.695                                   | 0.6 | 11.834                                 | 2.0 | 0.489                                  | 1.9           | 0.96          | 2565   | 41   | 2591  | 19 | 2612 | 9          | 98  |
| 02TD10-22 | 179        | 1122892                                 | 1.8  | 8.864                                   | 0.5 | 5.011                                  | 1.7 | 0.322                                  | 1.6           | 0.96          | 1800   | 26   | 1821  | 14 | 1845 | 9          | 98  |
| 02TD10-24 | 213        | 1741342                                 | 0.8  | 5.309                                   | 0.3 | 13.450                                 | 1.4 | 0.518                                  | 1.4           | 0.98          | 2690   | 30   | 2712  | 13 | 2728 | 5          | 99  |
| 02TD10-25 | 150        | 1139715                                 | 1.5  | 8.858                                   | 0.7 | 5.020                                  | 1.4 | 0.323                                  | 1.2           | 0.88          | 1802   | 19   | 1823  | 12 | 1846 | 12         | 98  |
| 02TD10-26 | 64         | 253863                                  | 1.8  | 8.908                                   | 1.4 | 5.018                                  | 3.5 | 0.324                                  | 3.2           | 0.92          | 1810   | 50   | 1822  | 29 | 1836 | 25         | 99  |
| 02TD10-27 | 152        | 705605                                  | 0.9  | 8.407                                   | 0.7 | 5.638                                  | 2.3 | 0.344                                  | 2.2           | 0.96          | 1905   | 36   | 1922  | 20 | 1940 | 12         | 98  |
| 02TD10-28 | 137        | 679038                                  | 2.5  | 8.859                                   | 0.6 | 5.105                                  | 1.7 | 0.328                                  | 1.5           | 0.93          | 1829   | 24   | 1837  | 14 | 1846 | 11         | 99  |
| 02TD10-29 | 48         | 214361                                  | 0.9  | 8.508                                   | 1.9 | 5.716                                  | 2.4 | 0.353                                  | 1.5           | 0.62          | 1947   | 26   | 1934  | 21 | 1919 | 34         | 101 |
| 02TD10-30 | 64         | 743519                                  | 1.7  | 5.351                                   | 1.0 | 13.246                                 | 2.0 | 0.514                                  | 1.7           | 0.87          | 2674   | 38   | 2697  | 19 | 2715 | 16         | 98  |
| 02TD10-31 | 160        | 652815                                  | 1.4  | 8.735                                   | 0.7 | 5.187                                  | 1.2 | 0.329                                  | 1.0           | 0.80          | 1832   | 15   | 1851  | 10 | 1872 | 13         | 98  |
| 02TD10-32 | 52         | 168744                                  | 1.3  | 8.499                                   | 2.7 | 5.533                                  | 2.9 | 0.341                                  | 1.1           | 0.39          | 1892   | 19   | 1906  | 25 | 1921 | 48         | 98  |
| 02TD10-33 | 318        | 1826188                                 | 1.6  | 6.788                                   | 0.4 | 8.782                                  | 2.4 | 0.432                                  | 2.4           | 0.99          | 2316   | 46   | 2316  | 22 | 2315 | 6          | 100 |
| 02TD10-34 | 188        | 1326072                                 | 2.7  | 8.998                                   | 0.4 | 4.649                                  | 2.6 | 0.303                                  | 2.5           | 0.99          | 1708   | 38   | 1758  | 21 | 1818 | 8          | 94  |
| 02TD10-35 | 77         | 724161                                  | 1.2  | 5.388                                   | 0.8 | 13.259                                 | 3.2 | 0.518                                  | 3.0           | 0.96          | 2691   | 67   | 2698  | 30 | 2704 | 14         | 100 |
| 02TD10-36 | 147        | 2106437                                 | 0.7  | 5.405                                   | 0.2 | 13.210                                 | 1.2 | 0.518                                  | 1.2           | 0.98          | 2690   | 26   | 2695  | 11 | 2698 | 4          | 100 |
| 02TD10-37 | 55         | 225830                                  | 1.7  | 8.927                                   | 2.2 | 4.933                                  | 2.9 | 0.319                                  | 1.9           | 0.66          | 1787   | 30   | 1808  | 25 | 1832 | 40         | 98  |
| 02TD10-38 | 85         | 425838                                  | 1.7  | 7.719                                   | 0.7 | 6.747                                  | 1.3 | 0.378                                  | 1.1           | 0.86          | 2066   | 19   | 2079  | 11 | 2092 | 11         | 99  |
| 02TD10-39 | 52         | 325671                                  | 2.3  | 8.297                                   | 1.5 | 5.886                                  | 1.8 | 0.354                                  | 0.9           | 0.54          | 1955   | 16   | 1959  | 15 | 1964 | 26         | 100 |
| 02TD10-40 | 219        | 1243244                                 | 8.5  | 9.025                                   | 0.5 | 4.971                                  | 1.5 | 0.325                                  | 1.5           | 0.94          | 1816   | 23   | 1814  | 13 | 1813 | 9          | 100 |
| 02TD10-41 | 176        | 897160                                  | 2.9  | 8.942                                   | 0.7 | 5.010                                  | 1.7 | 0.325                                  | 1.5           | 0.92          | 1814   | 24   | 1821  | 14 | 1829 | 12         | 99  |
| 02TD10-42 | 99         | 703929                                  | 1.3  | 8.532                                   | 1.0 | 5.762                                  | 2.9 | 0.357                                  | 2.7           | 0.94          | 1966   | 45   | 1941  | 25 | 1914 | 18         | 103 |
| 02TD10-43 | 118        | 1050139                                 | 1.0  | 5.397                                   | 0.5 | 13.543                                 | 2.1 | 0.530                                  | 2.1           | 0.98          | 2742   | 46   | 2718  | 20 | 2701 | 8          | 102 |
| 02TD10-44 | 34         | 203169                                  | 2.1  | 8.511                                   | 2.7 | 5.688                                  | 3.1 | 0.351                                  | 1.5           | 0.49          | 1940   | 25   | 1930  | 27 | 1918 | 48         | 101 |
| 02TD10-45 | 128        | 625736                                  | 1.3  | 8.832                                   | 1.2 | 5.319                                  | 1.8 | 0.341                                  | 1.3           | 0.75          | 1890   | 22   | 1872  | 15 | 1852 | 21         | 102 |
| 02TD10-46 | 139        | 897770                                  | 4.5  | 8.906                                   | 1.7 | 4.695                                  | 3.9 | 0.303                                  | 3.5           | 0.90          | 1707   | 53   | 1766  | 33 | 1837 | 31         | 93  |
| 02TD10-48 | 23         | 157426                                  | 1.0  | 5.408                                   | 2.1 | 13.751                                 | 2.7 | 0.539                                  | 1.8           | 0.64          | 2781   | 40   | 2733  | 26 | 2697 | 35         | 103 |
| 02TD10-49 | 142        | 851619                                  | 2.1  | 8.933                                   | 0.9 | 5.301                                  | 2.0 | 0.343                                  | 1.8           | 0.89          | 1903   | 29   | 1869  | 17 | 1831 | 16         | 104 |
| 02TD10-50 | 98         | 548765                                  | 1.7  | 7.777                                   | 1.0 | 7.012                                  | 2.2 | 0.396                                  | 2.0           | 0.89          | 2148   | 36   | 2113  | 20 | 2079 | 18         | 103 |
| 02TD10-51 | 73         | 309922                                  | 0.9  | 8.536                                   | 1.4 | 5.577                                  | 2.0 | 0.345                                  | 1.5           | 0.72          | 1912   | 24   | 1913  | 18 | 1913 | 25         | 100 |

|           |     |         |     |       |     |        |     |       |     |      |      |    |      |    |      |    |     |
|-----------|-----|---------|-----|-------|-----|--------|-----|-------|-----|------|------|----|------|----|------|----|-----|
| 02TD10-53 | 117 | 1062914 | 1.7 | 8.162 | 0.7 | 6.161  | 2.3 | 0.365 | 2.2 | 0.95 | 2005 | 37 | 1999 | 20 | 1993 | 12 | 101 |
| 02TD10-54 | 131 | 889572  | 0.7 | 8.488 | 0.4 | 5.823  | 2.0 | 0.358 | 1.9 | 0.98 | 1975 | 33 | 1950 | 17 | 1923 | 7  | 103 |
| 02TD10-55 | 35  | 281540  | 0.8 | 8.614 | 1.9 | 5.591  | 4.0 | 0.349 | 3.5 | 0.88 | 1931 | 59 | 1915 | 35 | 1897 | 35 | 102 |
| 02TD10-56 | 94  | 712978  | 1.4 | 6.850 | 1.0 | 8.591  | 2.3 | 0.427 | 2.0 | 0.90 | 2291 | 39 | 2296 | 20 | 2299 | 17 | 100 |
| 02TD10-57 | 188 | 1040769 | 2.1 | 7.770 | 0.4 | 6.916  | 1.0 | 0.390 | 0.9 | 0.94 | 2122 | 17 | 2101 | 9  | 2080 | 6  | 102 |
| 02TD10-58 | 203 | 5288642 | 1.4 | 5.375 | 0.4 | 13.969 | 1.9 | 0.545 | 1.8 | 0.98 | 2802 | 42 | 2748 | 18 | 2708 | 6  | 104 |
| 02TD10-59 | 29  | 111034  | 1.5 | 8.844 | 2.0 | 5.223  | 3.2 | 0.335 | 2.5 | 0.78 | 1863 | 40 | 1856 | 27 | 1849 | 36 | 101 |
| 02TD10-60 | 54  | 192774  | 1.7 | 8.556 | 1.7 | 5.566  | 3.4 | 0.345 | 3.0 | 0.87 | 1913 | 50 | 1911 | 30 | 1909 | 30 | 100 |
| 02TD10-61 | 80  | 1090514 | 1.4 | 5.320 | 0.4 | 13.615 | 2.1 | 0.525 | 2.0 | 0.98 | 2722 | 46 | 2723 | 20 | 2724 | 7  | 100 |
| 02TD10-62 | 51  | 591098  | 1.6 | 5.735 | 1.0 | 11.613 | 2.0 | 0.483 | 1.7 | 0.87 | 2541 | 37 | 2574 | 19 | 2600 | 16 | 98  |
| 02TD10-63 | 92  | 1068666 | 1.0 | 5.389 | 0.5 | 12.084 | 2.4 | 0.472 | 2.3 | 0.97 | 2494 | 47 | 2611 | 22 | 2703 | 9  | 92  |
| 02TD10-64 | 63  | 693758  | 2.1 | 7.780 | 1.1 | 6.474  | 1.8 | 0.365 | 1.4 | 0.78 | 2007 | 25 | 2042 | 16 | 2078 | 20 | 97  |
| 02TD10-65 | 55  | 518284  | 1.3 | 7.790 | 1.2 | 6.445  | 2.2 | 0.364 | 1.9 | 0.85 | 2002 | 32 | 2038 | 19 | 2076 | 20 | 96  |
| 02TD10-66 | 61  | 331879  | 1.7 | 8.471 | 1.3 | 5.391  | 1.7 | 0.331 | 1.1 | 0.65 | 1844 | 18 | 1883 | 14 | 1927 | 23 | 96  |
| 02TD10-67 | 99  | 630833  | 2.1 | 8.437 | 1.1 | 5.487  | 2.2 | 0.336 | 1.9 | 0.85 | 1866 | 30 | 1898 | 19 | 1934 | 21 | 96  |
| 02TD10-68 | 66  | 301031  | 1.6 | 8.853 | 2.0 | 4.879  | 2.6 | 0.313 | 1.6 | 0.64 | 1757 | 25 | 1799 | 22 | 1848 | 36 | 95  |
| 02TD10-69 | 46  | 434474  | 0.8 | 8.797 | 2.7 | 5.310  | 5.4 | 0.339 | 4.7 | 0.87 | 1881 | 76 | 1870 | 46 | 1859 | 49 | 101 |
| 02TD10-70 | 176 | 2076032 | 2.3 | 8.864 | 0.8 | 4.970  | 1.9 | 0.320 | 1.7 | 0.91 | 1787 | 27 | 1814 | 16 | 1845 | 14 | 97  |
| 02TD10-71 | 40  | 302859  | 2.2 | 9.035 | 2.9 | 4.802  | 4.5 | 0.315 | 3.5 | 0.77 | 1764 | 54 | 1785 | 38 | 1811 | 52 | 97  |
| 02TD10-72 | 40  | 286314  | 1.4 | 7.685 | 1.6 | 6.435  | 2.2 | 0.359 | 1.6 | 0.70 | 1976 | 27 | 2037 | 19 | 2100 | 28 | 94  |
| 02TD10-73 | 33  | 197033  | 0.8 | 9.006 | 3.4 | 4.706  | 6.0 | 0.307 | 4.9 | 0.82 | 1728 | 75 | 1768 | 50 | 1816 | 62 | 95  |
| 02TD10-74 | 71  | 370506  | 1.3 | 8.875 | 1.9 | 4.933  | 2.3 | 0.318 | 1.4 | 0.59 | 1778 | 21 | 1808 | 20 | 1843 | 34 | 96  |
| 02TD10-75 | 40  | 185388  | 1.1 | 9.075 | 2.6 | 4.789  | 3.0 | 0.315 | 1.5 | 0.51 | 1766 | 23 | 1783 | 25 | 1803 | 47 | 98  |

Rejected analyses

|           |     |         |     |       |      |        |       |       |      |      |      |     |      |    |    |    |              |
|-----------|-----|---------|-----|-------|------|--------|-------|-------|------|------|------|-----|------|----|----|----|--------------|
| 02TD10-23 | 107 | 637895  | 1.0 | 7.790 | 0.61 | 5.7907 | 1.91  | 0.327 | 1.81 | 0.95 | 1825 | 29  | 1945 | 17 | NA | NA | Disc.        |
| 02TD10-47 | 62  | 331999  | 3.3 | 8.708 | 3.5  | 4.9612 | 11.66 | 0.313 | 11.1 | 0.95 | 1757 | 171 | 1813 | 99 | NA | NA | High 6/8 err |
| 02TD10-52 | 178 | 1364261 | 0.8 | 9.148 | 0.45 | 5.1008 | 2.96  | 0.338 | 2.92 | 0.99 | 1879 | 48  | 1836 | 25 | NA | NA | Rev disc.    |

11LB04 - Milligen Formation, Independence Sandstone, 11T 0719246E 4839103N NAD 27

| Spot       | U<br>(ppm) | <sup>206</sup> Pb<br><sup>204</sup> Pb | Th/U | Isotopic ratios                        |     |                                       |     | Isotopic ages |  |  |   |    |      |    |      |     | Conc.<br>% |
|------------|------------|--|------|--|-----|---------------------------------------|-----|---------------|--|--|---|----|------|----|------|-----|------------|
|            |            |  |      | <sup>206</sup> Pb<br><sup>207</sup> Pb | % ± | <sup>207</sup> Pb<br><sup>235</sup> U | % ± | Corr<br>Coeff | <sup>206</sup> Pb ±<br><sup>238</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>235</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>206</sup> Pb (Ma) |    |      |    |      |     |            |
| 11LB04-78  | 904        | 91190                                  | 2.4  | 17.091                                 | 2.6 | 0.5533                                | 4.1 | 0.069         | 3.1  | 0.76   | 428   | 13 | 447  | 15 | 549  | 57  | NA         |
| 11LB04-5   | 367        | 60113                                  | 1.5  | 17.749                                 | 3.8 | 0.5394                                | 4.3 | 0.069         | 2.1  | 0.48   | 433   | 9  | 438  | 15 | 466  | 84  | 93         |
| 11LB04-21  | 188        | 24345                                  | 2.2  | 17.646                                 | 5.8 | 0.5450                                | 5.9 | 0.070         | 0.6  | 0.10   | 435   | 3  | 442  | 21 | 479  | 129 | 91         |
| 11LB04-89  | 471        | 84665                                  | 1.0  | 17.756                                 | 2.0 | 0.5555                                | 2.7 | 0.072         | 1.9  | 0.69   | 445   | 8  | 449  | 10 | 465  | 44  | 96         |
| 11LB04-50  | 720        | 172133                                 | 3.0  | 17.880                                 | 1.0 | 0.5581                                | 1.6 | 0.072         | 1.2  | 0.79   | 450   | 5  | 450  | 6  | 449  | 21  | 100        |
| 11LB04-13  | 1045       | 192911                                 | 1.3  | 16.694                                 | 0.7 | 0.8007                                | 1.9 | 0.097         | 1.8  | 0.93   | 596   | 10 | 597  | 9  | 600  | 15  | 99         |
| 11LB04-22  | 334        | 156428                                 | 8.0  | 14.143                                 | 0.9 | 1.5094                                | 1.4 | 0.155         | 1.0  | 0.72   | 928   | 8  | 934  | 8  | 949  | 19  | 98         |
| 11LB04-37  | 1020       | 223212                                 | 78.3 | 14.078                                 | 0.4 | 1.5257                                | 1.6 | 0.156         | 1.5  | 0.97   | 933   | 13 | 941  | 10 | 958  | 8   | 97         |
| 11LB04-19  | 141        | 51604                                  | 2.4  | 13.610                                 | 2.0 | 1.6160                                | 2.6 | 0.160         | 1.7  | 0.64   | 954   | 15 | 976  | 16 | 1027 | 40  | 93         |
| 11LB04-26  | 143        | 66139                                  | 2.4  | 13.599                                 | 2.1 | 1.6537                                | 2.7 | 0.163         | 1.7  | 0.62   | 974   | 15 | 991  | 17 | 1029 | 43  | 95         |
| 11LB04-43  | 202        | 92532                                  | 2.7  | 13.534                                 | 1.7 | 1.7163                                | 3.1 | 0.168         | 2.6  | 0.84   | 1004  | 24 | 1015 | 20 | 1038 | 34  | 97         |
| 11LB04-11  | 287        | 56974                                  | 1.9  | 13.263                                 | 1.3 | 1.7570                                | 3.8 | 0.169         | 3.6  | 0.94   | 1007  | 33 | 1030 | 24 | 1079 | 25  | 93         |
| 11LB04-8   | 173        | 98316                                  | 0.7  | 13.009                                 | 3.6 | 1.9589                                | 4.1 | 0.185         | 2.0  | 0.48   | 1093  | 20 | 1102 | 28 | 1118 | 71  | 98         |
| 11LB04-36  | 401        | 269856                                 | 2.0  | 12.961                                 | 0.7 | 2.0365                                | 4.0 | 0.191         | 3.9  | 0.99   | 1129  | 41 | 1128 | 27 | 1125 | 13  | 100        |
| 11LB04-62  | 170        | 84183                                  | 3.0  | 12.917                                 | 1.0 | 2.0204                                | 2.2 | 0.189         | 1.9  | 0.90   | 1117  | 20 | 1122 | 15 | 1132 | 19  | 99         |
| 11LB04-29  | 134        | 55620                                  | 1.7  | 12.764                                 | 1.8 | 2.0273                                | 3.0 | 0.188         | 2.3  | 0.79   | 1109  | 24 | 1125 | 20 | 1156 | 36  | 96         |
| 11LB04-100 | 528        | 139047                                 | 2.7  | 12.656                                 | 0.4 | 2.1745                                | 1.6 | 0.200         | 1.5  | 0.96   | 1173  | 16 | 1173 | 11 | 1172 | 9   | 100        |
| 11LB04-55  | 112        | 50734                                  | 2.2  | 12.542                                 | 2.6 | 2.1361                                | 4.3 | 0.194         | 3.4  | 0.79   | 1145  | 36 | 1161 | 30 | 1190 | 52  | 96         |
| 11LB04-41  | 648        | 188887                                 | 2.3  | 12.408                                 | 0.5 | 2.2518                                | 1.8 | 0.203         | 1.7  | 0.96   | 1189  | 19 | 1197 | 12 | 1212 | 10  | 98         |
| 11LB04-67  | 527        | 41591                                  | 1.1  | 12.405                                 | 0.4 | 2.2293                                | 2.9 | 0.201         | 2.9  | 0.99   | 1178  | 31 | 1190 | 20 | 1212 | 8   | 97         |

|                   |     |        |      |        |     |         |     |       |     |      |      |     |      |    |      |     |     |
|-------------------|-----|--------|------|--------|-----|---------|-----|-------|-----|------|------|-----|------|----|------|-----|-----|
| 11LB04-69         | 105 | 54695  | 2.1  | 12.370 | 2.6 | 2.3366  | 9.5 | 0.210 | 9.2 | 0.96 | 1227 | 102 | 1223 | 68 | 1218 | 51  | 101 |
| 11LB04-76         | 240 | 83453  | 1.9  | 11.912 | 0.9 | 2.5981  | 1.9 | 0.224 | 1.7 | 0.89 | 1305 | 20  | 1300 | 14 | 1291 | 17  | 101 |
| 11LB04-81         | 106 | 94677  | 2.5  | 11.834 | 1.3 | 2.6958  | 3.8 | 0.231 | 3.6 | 0.94 | 1342 | 44  | 1327 | 28 | 1304 | 26  | 103 |
| 11LB04-82         | 544 | 53895  | 2.9  | 11.573 | 0.7 | 2.7483  | 1.7 | 0.231 | 1.6 | 0.92 | 1338 | 19  | 1342 | 13 | 1347 | 13  | 99  |
| 11LB04-42         | 203 | 44196  | 2.8  | 11.558 | 1.1 | 2.7270  | 1.9 | 0.229 | 1.5 | 0.80 | 1327 | 18  | 1336 | 14 | 1350 | 21  | 98  |
| 11LB04-32         | 128 | 62823  | 1.9  | 11.403 | 1.6 | 2.8355  | 3.0 | 0.234 | 2.5 | 0.84 | 1358 | 31  | 1365 | 22 | 1376 | 31  | 99  |
| 11LB04-74         | 93  | 95359  | 1.8  | 11.225 | 1.1 | 3.0221  | 4.0 | 0.246 | 3.8 | 0.96 | 1418 | 49  | 1413 | 30 | 1406 | 21  | 101 |
| 11LB04-12         | 254 | 37614  | 2.2  | 10.903 | 1.0 | 2.8930  | 4.7 | 0.229 | 4.6 | 0.98 | 1328 | 55  | 1380 | 35 | 1462 | 19  | 91  |
| 11LB04-71         | 568 | 289381 | 2.5  | 10.817 | 0.5 | 3.1383  | 1.6 | 0.246 | 1.5 | 0.96 | 1419 | 20  | 1442 | 12 | 1477 | 9   | 96  |
| 11LB04-61         | 160 | 110301 | 3.1  | 10.797 | 0.8 | 3.2690  | 1.7 | 0.256 | 1.5 | 0.88 | 1469 | 20  | 1474 | 13 | 1480 | 15  | 99  |
| 11LB04-99         | 87  | 37803  | 1.1  | 10.516 | 2.0 | 3.3902  | 3.6 | 0.259 | 2.9 | 0.82 | 1482 | 39  | 1502 | 28 | 1530 | 38  | 97  |
| 11LB04-39         | 70  | 26237  | 1.2  | 10.508 | 2.3 | 3.4323  | 2.5 | 0.262 | 1.1 | 0.42 | 1498 | 14  | 1512 | 20 | 1531 | 43  | 98  |
| 11LB04-80         | 302 | 35081  | 1.6  | 10.179 | 0.7 | 3.3695  | 3.3 | 0.249 | 3.2 | 0.98 | 1432 | 42  | 1497 | 26 | 1591 | 13  | 90  |
| 11LB04-57         | 240 | 115302 | 1.6  | 10.041 | 0.8 | 3.7184  | 8.1 | 0.271 | 8.0 | 0.99 | 1545 | 110 | 1575 | 65 | 1616 | 15  | 96  |
| 11LB04-40         | 197 | 120737 | 2.7  | 9.950  | 0.7 | 4.0659  | 1.4 | 0.293 | 1.2 | 0.85 | 1659 | 18  | 1647 | 12 | 1633 | 14  | 102 |
| 11LB04-88         | 395 | 298268 | 3.1  | 9.948  | 0.3 | 4.1642  | 0.9 | 0.300 | 0.9 | 0.95 | 1694 | 13  | 1667 | 7  | 1634 | 5   | 104 |
| 11LB04-52         | 550 | 108603 | 6.8  | 9.938  | 0.7 | 4.0820  | 1.3 | 0.294 | 1.2 | 0.87 | 1663 | 17  | 1651 | 11 | 1636 | 12  | 102 |
| 11LB04-9          | 267 | 95801  | 0.7  | 9.846  | 0.5 | 3.8674  | 1.7 | 0.276 | 1.6 | 0.96 | 1572 | 22  | 1607 | 13 | 1653 | 9   | 95  |
| 11LB04-10         | 96  | 66805  | 0.6  | 9.821  | 0.9 | 4.0430  | 1.8 | 0.288 | 1.6 | 0.86 | 1631 | 22  | 1643 | 15 | 1658 | 17  | 98  |
| 11LB04-93         | 86  | 31709  | 1.9  | 9.818  | 1.7 | 4.1518  | 3.2 | 0.296 | 2.7 | 0.84 | 1670 | 39  | 1665 | 26 | 1658 | 32  | 101 |
| 11LB04-58         | 514 | 215658 | 2.1  | 9.796  | 0.4 | 3.8817  | 1.4 | 0.276 | 1.4 | 0.97 | 1570 | 19  | 1610 | 11 | 1662 | 7   | 94  |
| 11LB04-30         | 656 | 95491  | 3.1  | 9.795  | 0.2 | 3.9624  | 1.0 | 0.281 | 0.9 | 0.98 | 1599 | 13  | 1627 | 8  | 1662 | 4   | 96  |
| 11LB04-48         | 273 | 75533  | 1.3  | 9.795  | 0.6 | 3.9522  | 1.9 | 0.281 | 1.9 | 0.95 | 1595 | 26  | 1624 | 16 | 1663 | 11  | 96  |
| 11LB04-79         | 170 | 141781 | 1.6  | 9.784  | 0.7 | 4.2693  | 1.4 | 0.303 | 1.2 | 0.86 | 1706 | 19  | 1687 | 12 | 1665 | 14  | 102 |
| 11LB04-64         | 162 | 77809  | 1.0  | 9.763  | 1.5 | 3.8604  | 2.9 | 0.273 | 2.5 | 0.85 | 1558 | 34  | 1605 | 24 | 1669 | 29  | 93  |
| 11LB04-25         | 243 | 143029 | 1.7  | 9.631  | 0.7 | 3.9141  | 5.6 | 0.273 | 5.6 | 0.99 | 1558 | 77  | 1617 | 46 | 1694 | 13  | 92  |
| 11LB04-45         | 89  | 78761  | 3.3  | 9.552  | 1.3 | 4.3413  | 2.1 | 0.301 | 1.7 | 0.80 | 1695 | 25  | 1701 | 18 | 1709 | 23  | 99  |
| 11LB04-34         | 106 | 84208  | 1.3  | 9.508  | 1.3 | 4.4183  | 2.1 | 0.305 | 1.5 | 0.76 | 1714 | 23  | 1716 | 17 | 1717 | 25  | 100 |
| 11LB04-3          | 26  | 13800  | 1.1  | 9.483  | 3.5 | 4.2870  | 4.2 | 0.295 | 2.3 | 0.55 | 1666 | 34  | 1691 | 34 | 1722 | 64  | 97  |
| 11LB04-66         | 208 | 121731 | 2.0  | 9.468  | 0.6 | 4.4844  | 1.0 | 0.308 | 0.9 | 0.81 | 1731 | 13  | 1728 | 9  | 1725 | 11  | 100 |
| 11LB04-91         | 176 | 169259 | 2.5  | 9.373  | 0.7 | 4.6662  | 2.7 | 0.317 | 2.6 | 0.97 | 1776 | 40  | 1761 | 22 | 1744 | 12  | 102 |
| 11LB04-86         | 274 | 515844 | 2.9  | 9.360  | 0.6 | 4.5412  | 2.5 | 0.308 | 2.4 | 0.97 | 1732 | 36  | 1739 | 20 | 1746 | 10  | 99  |
| 11LB04-53         | 549 | 39190  | 4.7  | 9.357  | 0.4 | 4.3947  | 1.4 | 0.298 | 1.3 | 0.96 | 1683 | 19  | 1711 | 11 | 1747 | 7   | 96  |
| 11LB04-28         | 282 | 264840 | 4.2  | 9.281  | 0.2 | 4.7603  | 2.2 | 0.320 | 2.2 | 0.99 | 1792 | 35  | 1778 | 19 | 1762 | 4   | 102 |
| 11LB04-15         | 853 | 263771 | 14.9 | 9.254  | 1.3 | 4.4828  | 1.7 | 0.301 | 1.0 | 0.63 | 1696 | 16  | 1728 | 14 | 1767 | 24  | 96  |
| 11LB04-56         | 231 | 11710  | 2.5  | 9.209  | 0.5 | 4.6254  | 2.0 | 0.309 | 1.9 | 0.96 | 1735 | 29  | 1754 | 16 | 1776 | 10  | 98  |
| 11LB04-84         | 98  | 95183  | 1.8  | 9.178  | 0.5 | 4.6868  | 2.6 | 0.312 | 2.6 | 0.98 | 1750 | 39  | 1765 | 22 | 1782 | 10  | 98  |
| 11LB04-90         | 300 | 601156 | 3.1  | 9.061  | 0.4 | 4.9953  | 1.7 | 0.328 | 1.7 | 0.97 | 1830 | 27  | 1819 | 15 | 1805 | 7   | 101 |
| 11LB04-38         | 207 | 156638 | 2.6  | 9.055  | 0.5 | 4.9010  | 2.8 | 0.322 | 2.8 | 0.98 | 1799 | 44  | 1802 | 24 | 1807 | 10  | 100 |
| 11LB04-83         | 183 | 128222 | 0.9  | 8.981  | 0.7 | 5.0600  | 2.8 | 0.330 | 2.7 | 0.96 | 1836 | 43  | 1829 | 24 | 1822 | 13  | 101 |
| 11LB04-20         | 26  | 21421  | 1.3  | 8.959  | 3.5 | 4.9903  | 4.1 | 0.324 | 2.0 | 0.49 | 1810 | 32  | 1818 | 34 | 1826 | 64  | 99  |
| 11LB04-33         | 302 | 25385  | 2.4  | 8.930  | 0.4 | 4.6943  | 1.4 | 0.304 | 1.4 | 0.97 | 1711 | 20  | 1766 | 12 | 1832 | 7   | 93  |
| 11LB04-7          | 137 | 55387  | 1.8  | 8.834  | 0.9 | 4.9940  | 2.5 | 0.320 | 2.4 | 0.93 | 1790 | 37  | 1818 | 21 | 1851 | 17  | 97  |
| 11LB04-65         | 167 | 127968 | 1.9  | 6.057  | 0.7 | 10.3304 | 1.4 | 0.454 | 1.2 | 0.87 | 2412 | 24  | 2465 | 13 | 2509 | 12  | 96  |
| 11LB04-73         | 107 | 9876   | 0.7  | 6.046  | 1.6 | 10.0594 | 2.4 | 0.441 | 1.9 | 0.76 | 2356 | 37  | 2440 | 22 | 2512 | 26  | 94  |
| 11LB04-63         | 42  | 54031  | 0.8  | 5.463  | 0.6 | 13.1313 | 1.3 | 0.520 | 1.1 | 0.88 | 2701 | 25  | 2689 | 12 | 2681 | 10  | 101 |
| 11LB04-75         | 364 | 130871 | 2.0  | 5.441  | 0.3 | 12.1504 | 1.8 | 0.480 | 1.7 | 0.99 | 2525 | 36  | 2616 | 17 | 2687 | 5   | 94  |
| 11LB04-31         | 127 | 200163 | 0.7  | 5.430  | 0.7 | 12.7977 | 1.7 | 0.504 | 1.5 | 0.90 | 2631 | 32  | 2665 | 16 | 2691 | 12  | 98  |
| 11LB04-46         | 245 | 146981 | 0.6  | 5.225  | 0.4 | 13.6803 | 0.5 | 0.518 | 0.4 | 0.67 | 2693 | 8   | 2728 | 5  | 2754 | 6   | 98  |
| Rejected analyses |     |        |      |        |     |         |     |       |     |      |      |     |      |    |      |     |     |
| 11LB04-35         | 101 | 8207   | 2.3  | 13.542 | 3.7 | 1.2779  | 4.3 | 0.126 | 2.1 | 0.49 | 762  | 15  | 836  | 24 | 1037 | 75  | 73  |
| 11LB04-87         | 81  | 12472  | 0.9  | 12.863 | 5.1 | 1.4738  | 5.8 | 0.137 | 2.8 | 0.48 | 830  | 22  | 920  | 35 | 1140 | 101 | 73  |

|           |      |        |      |        |       |         |       |       |      |      |      |     |      |     |      |     |              |
|-----------|------|--------|------|--------|-------|---------|-------|-------|------|------|------|-----|------|-----|------|-----|--------------|
| 11LB04-98 | 144  | 52548  | 3.4  | 13.633 | 2.4   | 1.8263  | 6.2   | 0.181 | 5.8  | 0.92 | 1070 | 57  | 1055 | 41  | 1024 | 48  | 105          |
| 11LB04-77 | 489  | 129079 | 5.0  | 10.963 | 0.6   | 2.7056  | 2.1   | 0.215 | 2.0  | 0.96 | 1256 | 23  | 1330 | 15  | 1451 | 11  | 87           |
| 11LB04-54 | 239  | 165111 | 2.8  | 8.644  | 6.0   | 4.1681  | 7.0   | 0.261 | 3.6  | 0.51 | 1496 | 48  | 1668 | 57  | 1891 | 108 | 79           |
| 11LB04-14 | 564  | 191601 | 2.5  | 8.584  | 0.6   | 4.8427  | 2.8   | 0.302 | 2.8  | 0.98 | 1699 | 42  | 1792 | 24  | 1903 | 10  | 89           |
| 11LB04-60 | 234  | 17100  | 4.0  | 8.354  | 1.9   | 5.0559  | 2.2   | 0.306 | 1.1  | 0.50 | 1723 | 17  | 1829 | 19  | 1952 | 34  | 88           |
| 11LB04-1  | 23   | 11501  | 0.8  | 12.7   | 9.2   | 2.0085  | 9.70  | 0.185 | 3.21 | 0.33 | 1094 | 32  | 1118 | 66  | NA   | NA  | High 6/7 err |
| 11LB04-2  | 93   | 64462  | 1.2  | 9.8    | 1.5   | 4.2479  | 3.40  | 0.302 | 3.04 | 0.89 | 1703 | 46  | 1683 | 28  | NA   | NA  | Rev disc.    |
| 11LB04-4  | 30   | 7204   | 1.1  | 13.700 | 6.46  | 1.6795  | 6.75  | 0.167 | 1.94 | 0.29 | 995  | 18  | 1001 | 43  | NA   | NA  | High 6/7 err |
| 11LB04-6  | 233  | 121801 | 2.5  | 8.838  | 0.30  | 5.3434  | 3.43  | 0.342 | 3.42 | 1.00 | 1899 | 56  | 1876 | 29  | NA   | NA  | Rev disc.    |
| 11LB04-16 | 18   | 5798   | 1.0  | 14.29  | 12.7  | 1.6781  | 12.77 | 0.174 | 1.18 | 0.09 | 1034 | 11  | 1000 | 81  | NA   | NA  | High 6/7 err |
| 11LB04-17 | 23   | 6261   | 2.2  | 13.28  | 13.3  | 1.9206  | 13.60 | 0.185 | 2.85 | 0.21 | 1094 | 29  | 1088 | 91  | NA   | NA  | High 6/7 err |
| 11LB04-18 | 243  | 5539   | 2.9  | 5.50   | 0.5   | 5.1114  | 5.95  | 0.204 | 5.93 | 1.00 | 1196 | 65  | 1838 | 51  | NA   | NA  | Disc.        |
| 11LB04-23 | 107  | 122946 | 1.7  | 8.20   | 1.0   | 6.5245  | 1.12  | 0.388 | 0.57 | 0.51 | 2113 | 10  | 2049 | 10  | NA   | NA  | Rev disc.    |
| 11LB04-24 | 57   | 34726  | 1.0  | 13.96  | 6.6   | 1.5835  | 6.68  | 0.160 | 1.14 | 0.17 | 958  | 10  | 964  | 42  | NA   | NA  | High 6/7 err |
| 11LB04-27 | 1253 | 4457   | 1.7  | 10.33  | 1.2   | 2.0007  | 2.53  | 0.150 | 2.21 | 0.87 | 901  | 19  | 1116 | 17  | NA   | NA  | Disc.        |
| 11LB04-44 | 31   | 19328  | 1.48 | 13.26  | 9.69  | 2.0876  | 10.75 | 0.201 | 4.66 | 0.43 | 1179 | 50  | 1145 | 74  | NA   | NA  | High 6/7 err |
| 11LB04-47 | 1245 | 11582  | 1.15 | 12.76  | 4.10  | 1.8405  | 4.28  | 0.170 | 1.26 | 0.29 | 1014 | 12  | 1060 | 28  | NA   | NA  | High 204     |
| 11LB04-49 | 177  | 26041  | 5.79 | 4.80   | 4.01  | 11.2872 | 30.28 | 0.393 | 30.0 | 0.99 | 2136 | 547 | 2547 | 290 | NA   | NA  | High 6/8 err |
| 11LB04-51 | 940  | 33351  | 4.35 | 10.35  | 1.06  | 2.8184  | 6.03  | 0.212 | 5.94 | 0.98 | 1237 | 67  | 1360 | 45  | NA   | NA  | High 204     |
| 11LB04-59 | 37   | 5927   | 4.7  | 17.722 | 18.11 | 0.4215  | 106.8 | 0.054 | 105  | 0.99 | 340  | 349 | 357  | 333 | NA   | NA  | High 6/8 err |
| 11LB04-60 | 229  | 48167  | 2.8  | 8.434  | 13.56 | 4.8938  | 14.33 | 0.299 | 4.62 | 0.32 | 1688 | 69  | 1801 | 121 | NA   | NA  | High 6/7 err |
| 11LB04-68 | 998  | 24060  | 1.4  | 9.580  | 0.67  | 4.3225  | 1.61  | 0.300 | 1.47 | 0.91 | 1693 | 22  | 1698 | 13  | NA   | NA  | High 204     |
| 11LB04-70 | 377  | 6945   | 1.1  | 9.568  | 2.48  | 3.8896  | 2.74  | 0.270 | 1.16 | 0.42 | 1540 | 16  | 1612 | 22  | NA   | NA  | High 204     |
| 11LB04-72 | 1326 | 7179   | 2.3  | 12.983 | 1.44  | 1.4721  | 2.19  | 0.139 | 1.65 | 0.75 | 837  | 13  | 919  | 13  | NA   | NA  | High 204     |
| 11LB04-92 | 575  | 222195 | 5.3  | 11.822 | 6.37  | 2.2462  | 20.83 | 0.193 | 19.8 | 0.95 | 1135 | 206 | 1196 | 147 | NA   | NA  | High 6/8 err |
| 11LB04-95 | 34   | 25949  | 1.3  | 12.811 | 10.55 | 1.9376  | 10.67 | 0.180 | 1.58 | 0.15 | 1067 | 16  | 1094 | 72  | NA   | NA  | High 6/7 err |
| 11LB04-96 | 38   | 24605  | 1.8  | 13.903 | 6.44  | 1.7490  | 6.86  | 0.176 | 2.36 | 0.34 | 1047 | 23  | 1027 | 44  | NA   | NA  | High 6/7 err |

05PL13 - Jefferson Formation, 12T 0275633E 4891097N NAD 27

| Spot     | U<br>(ppm) | Isotopic ratios                         |      |   |     |  | Isotopic ages |  |     |               |  |  |   |    |      |    | Conc.<br>% |
|----------|------------|---|------|---|-----|--|---------------|--|-----|---------------|--|--|---|----|------|----|------------|
|          |            | <sup>206</sup> Pb/<br><sup>204</sup> Pb | Th/U | <sup>206</sup> Pb/<br><sup>207</sup> Pb | % ± | <sup>207</sup> Pb/<br><sup>235</sup> U | % ±           | <sup>206</sup> Pb/<br><sup>238</sup> U | % ± | Corr<br>Coeff | <sup>206</sup> Pb ±<br><sup>238</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>235</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>206</sup> Pb (Ma) |    |      |    |            |
| 5PL13-1  | 264        | 416730                                  | 1.9  | 6.777                                   | 0.6 | 8.345                                  | 1.0           | 0.410                                  | 0.8 | 0.82          | 2216   | 15   | 2269  | 9  | 2318 | 10 | 96         |
| 5PL13-2  | 122        | 105401                                  | 0.7  | 9.815                                   | 0.7 | 4.226                                  | 1.8           | 0.301                                  | 1.7 | 0.93          | 1695   | 25   | 1679  | 15 | 1659 | 12 | 102        |
| 5PL13-3  | 207        | 215300                                  | 1.5  | 11.298                                  | 0.5 | 2.992                                  | 1.5           | 0.245                                  | 1.4 | 0.94          | 1414   | 18   | 1406  | 11 | 1394 | 10 | 101        |
| 5PL13-4  | 205        | 189111                                  | 3.0  | 8.854                                   | 0.3 | 5.214                                  | 1.1           | 0.335                                  | 1.0 | 0.95          | 1862   | 16   | 1855  | 9  | 1847 | 6  | 101        |
| 5PL13-5  | 148        | 293367                                  | 2.1  | 9.036                                   | 0.5 | 4.956                                  | 0.8           | 0.325                                  | 0.7 | 0.81          | 1813   | 11   | 1812  | 7  | 1811 | 9  | 100        |
| 5PL13-6  | 171        | 167214                                  | 1.1  | 8.834                                   | 0.4 | 5.097                                  | 1.0           | 0.327                                  | 0.9 | 0.92          | 1822   | 15   | 1836  | 9  | 1851 | 7  | 98         |
| 5PL13-7  | 143        | 36003                                   | 1.6  | 10.437                                  | 1.2 | 3.562                                  | 3.2           | 0.270                                  | 3.0 | 0.92          | 1539   | 41   | 1541  | 25 | 1544 | 23 | 100        |
| 5PL13-8  | 216        | 248101                                  | 11.4 | 5.320                                   | 0.2 | 13.643                                 | 1.2           | 0.526                                  | 1.1 | 0.99          | 2726   | 25   | 2725  | 11 | 2725 | 3  | 100        |
| 5PL13-9  | 196        | 154333                                  | 1.8  | 10.301                                  | 0.8 | 3.646                                  | 2.5           | 0.272                                  | 2.3 | 0.95          | 1553   | 32   | 1560  | 20 | 1569 | 15 | 99         |
| 5PL13-10 | 229        | 123974                                  | 3.2  | 11.600                                  | 0.6 | 2.880                                  | 3.2           | 0.242                                  | 3.2 | 0.98          | 1398   | 40   | 1377  | 24 | 1343 | 11 | 104        |
| 5PL13-11 | 30         | 24080                                   | 0.9  | 12.903                                  | 3.7 | 1.924                                  | 4.0           | 0.180                                  | 1.7 | 0.42          | 1067   | 17   | 1089  | 27 | 1134 | 73 | 94         |
| 5PL13-12 | 124        | 91277                                   | 2.3  | 12.886                                  | 0.8 | 2.110                                  | 1.7           | 0.197                                  | 1.5 | 0.89          | 1160   | 16   | 1152  | 12 | 1137 | 16 | 102        |
| 5PL13-13 | 110        | 224205                                  | 1.5  | 8.851                                   | 0.4 | 5.276                                  | 2.0           | 0.339                                  | 2.0 | 0.98          | 1880   | 32   | 1865  | 17 | 1848 | 8  | 102        |
| 5PL13-14 | 290        | 198721                                  | 6.0  | 9.944                                   | 0.5 | 3.971                                  | 1.0           | 0.286                                  | 0.8 | 0.86          | 1623   | 12   | 1628  | 8  | 1635 | 9  | 99         |
| 5PL13-15 | 97         | 120425                                  | 1.1  | 11.855                                  | 0.9 | 2.699                                  | 1.2           | 0.232                                  | 0.9 | 0.69          | 1345   | 10   | 1328  | 9  | 1301 | 17 | 103        |
| 5PL13-16 | 531        | 51359                                   | 1.3  | 17.313                                  | 0.7 | 0.648                                  | 1.6           | 0.081                                  | 1.5 | 0.91          | 505  | 7  | 508   | 7  | 521  | 15 | 97         |
| 5PL13-17 | 186        | 321550                                  | 1.8  | 11.332                                  | 0.6 | 2.973                                  | 2.2           | 0.244                                  | 2.1 | 0.96          | 1409   | 26   | 1401  | 17 | 1388 | 12 | 102        |
| 5PL13-18 | 113        | 57064                                   | 3.1  | 12.336                                  | 2.1 | 2.304                                  | 4.2           | 0.206                                  | 3.6 | 0.86          | 1208   | 40   | 1214  | 30 | 1223 | 42 | 99         |
| 5PL13-19 | 72         | 79864                                   | 2.0  | 10.194                                  | 1.2 | 3.772                                  | 1.3           | 0.279                                  | 0.5 | 0.41          | 1586   | 8  | 1587  | 11 | 1588 | 23 | 100        |
| 5PL13-20 | 73         | 53735                                   | 7.7  | 7.844                                   | 3.1 | 6.613                                  | 6.1           | 0.376                                  | 5.3 | 0.86          | 2059   | 93   | 2061  | 54 | 2063 | 55 | 100        |
| 5PL13-21 | 129        | 109006                                  | 1.3  | 5.531                                   | 0.6 | 12.067                                 | 1.4           | 0.484                                  | 1.3 | 0.91          | 2545   | 27   | 2610  | 13 | 2660 | 10 | 96         |

|          |     |        |     |        |     |        |     |       |     |      |      |    |      |    |      |     |     |
|----------|-----|--------|-----|--------|-----|--------|-----|-------|-----|------|------|----|------|----|------|-----|-----|
| 5PL13-22 | 58  | 6978   | 1.9 | 13.184 | 5.0 | 1.896  | 5.5 | 0.181 | 2.5 | 0.45 | 1074 | 24 | 1080 | 37 | 1091 | 99  | 98  |
| 5PL13-24 | 211 | 121781 | 2.1 | 10.673 | 0.4 | 3.546  | 2.6 | 0.274 | 2.6 | 0.99 | 1563 | 36 | 1537 | 21 | 1502 | 8   | 104 |
| 5PL13-25 | 121 | 308931 | 1.6 | 8.833  | 0.5 | 5.266  | 2.0 | 0.337 | 1.9 | 0.97 | 1874 | 32 | 1863 | 17 | 1852 | 9   | 101 |
| 5PL13-26 | 165 | 265743 | 2.4 | 9.855  | 0.3 | 4.111  | 2.8 | 0.294 | 2.7 | 1.00 | 1661 | 40 | 1657 | 23 | 1651 | 5   | 101 |
| 5PL13-27 | 231 | 404586 | 1.4 | 9.795  | 0.3 | 4.115  | 0.8 | 0.292 | 0.8 | 0.94 | 1653 | 12 | 1657 | 7  | 1663 | 5   | 99  |
| 5PL13-29 | 760 | 156654 | 2.2 | 12.821 | 0.4 | 1.965  | 2.3 | 0.183 | 2.2 | 0.99 | 1082 | 22 | 1103 | 15 | 1147 | 8   | 94  |
| 5PL13-30 | 85  | 30152  | 0.9 | 9.814  | 1.1 | 4.197  | 3.6 | 0.299 | 3.4 | 0.95 | 1685 | 50 | 1673 | 29 | 1659 | 21  | 102 |
| 5PL13-31 | 46  | 131649 | 1.3 | 8.622  | 1.3 | 5.496  | 2.2 | 0.344 | 1.8 | 0.80 | 1905 | 29 | 1900 | 19 | 1895 | 23  | 100 |
| 5PL13-32 | 90  | 63414  | 1.2 | 9.605  | 0.9 | 4.375  | 1.4 | 0.305 | 1.0 | 0.73 | 1715 | 15 | 1708 | 11 | 1699 | 17  | 101 |
| 5PL13-33 | 76  | 42997  | 0.8 | 13.580 | 2.8 | 1.809  | 4.5 | 0.178 | 3.4 | 0.77 | 1057 | 34 | 1049 | 29 | 1032 | 57  | 102 |
| 5PL13-34 | 29  | 18042  | 0.6 | 13.005 | 5.0 | 1.861  | 5.3 | 0.175 | 1.8 | 0.34 | 1042 | 17 | 1067 | 35 | 1118 | 99  | 93  |
| 5PL13-35 | 52  | 48827  | 2.0 | 11.684 | 2.0 | 2.619  | 2.5 | 0.222 | 1.4 | 0.57 | 1292 | 16 | 1306 | 18 | 1329 | 39  | 97  |
| 5PL13-36 | 141 | 87291  | 1.5 | 13.127 | 1.1 | 1.897  | 1.5 | 0.181 | 1.0 | 0.65 | 1070 | 9  | 1080 | 10 | 1100 | 23  | 97  |
| 5PL13-37 | 49  | 194807 | 2.0 | 8.473  | 1.0 | 5.746  | 1.2 | 0.353 | 0.7 | 0.59 | 1950 | 12 | 1938 | 11 | 1926 | 18  | 101 |
| 5PL13-39 | 65  | 36222  | 0.9 | 9.804  | 1.5 | 4.035  | 2.0 | 0.287 | 1.3 | 0.63 | 1626 | 18 | 1641 | 16 | 1661 | 29  | 98  |
| 5PL13-40 | 543 | 362867 | 2.3 | 9.277  | 0.2 | 4.518  | 2.0 | 0.304 | 2.0 | 0.99 | 1711 | 30 | 1734 | 17 | 1762 | 4   | 97  |
| 5PL13-41 | 153 | 85488  | 2.9 | 9.833  | 0.4 | 4.236  | 2.2 | 0.302 | 2.2 | 0.98 | 1702 | 32 | 1681 | 18 | 1655 | 7   | 103 |
| 5PL13-42 | 197 | 137937 | 1.8 | 11.357 | 0.5 | 2.748  | 1.7 | 0.226 | 1.7 | 0.96 | 1315 | 20 | 1342 | 13 | 1384 | 10  | 95  |
| 5PL13-43 | 58  | 54596  | 1.0 | 10.714 | 1.3 | 3.424  | 2.4 | 0.266 | 2.0 | 0.84 | 1521 | 27 | 1510 | 19 | 1495 | 25  | 102 |
| 5PL13-44 | 104 | 58958  | 2.1 | 9.102  | 0.6 | 4.862  | 2.5 | 0.321 | 2.4 | 0.97 | 1794 | 38 | 1796 | 21 | 1797 | 11  | 100 |
| 5PL13-45 | 175 | 166609 | 3.4 | 9.963  | 1.0 | 4.018  | 3.4 | 0.290 | 3.3 | 0.95 | 1643 | 47 | 1638 | 28 | 1631 | 19  | 101 |
| 5PL13-46 | 159 | 72077  | 1.2 | 9.552  | 0.5 | 4.154  | 0.9 | 0.288 | 0.7 | 0.81 | 1630 | 10 | 1665 | 7  | 1709 | 10  | 95  |
| 5PL13-48 | 86  | 306304 | 1.2 | 9.883  | 0.7 | 4.153  | 1.6 | 0.298 | 1.4 | 0.89 | 1680 | 21 | 1665 | 13 | 1646 | 13  | 102 |
| 5PL13-49 | 113 | 79533  | 2.6 | 11.754 | 1.1 | 2.685  | 2.1 | 0.229 | 1.7 | 0.83 | 1329 | 21 | 1324 | 15 | 1317 | 22  | 101 |
| 5PL13-51 | 150 | 89434  | 2.2 | 9.798  | 0.6 | 4.073  | 1.9 | 0.289 | 1.8 | 0.95 | 1639 | 26 | 1649 | 16 | 1662 | 12  | 99  |
| 5PL13-52 | 70  | 110818 | 2.7 | 8.903  | 0.8 | 5.138  | 2.7 | 0.332 | 2.6 | 0.96 | 1847 | 41 | 1842 | 23 | 1837 | 14  | 101 |
| 5PL13-53 | 56  | 88900  | 0.9 | 10.331 | 1.4 | 3.558  | 3.1 | 0.267 | 2.7 | 0.89 | 1524 | 37 | 1540 | 24 | 1563 | 27  | 97  |
| 5PL13-54 | 77  | 147594 | 1.3 | 7.745  | 0.5 | 6.710  | 1.1 | 0.377 | 1.0 | 0.90 | 2062 | 17 | 2074 | 10 | 2086 | 9   | 99  |
| 5PL13-55 | 40  | 49520  | 1.1 | 9.763  | 2.2 | 4.196  | 2.4 | 0.297 | 1.1 | 0.45 | 1677 | 16 | 1673 | 20 | 1669 | 40  | 101 |
| 5PL13-56 | 90  | 65827  | 2.0 | 11.721 | 1.0 | 2.802  | 1.5 | 0.238 | 1.1 | 0.73 | 1378 | 14 | 1356 | 11 | 1323 | 20  | 104 |
| 5PL13-57 | 35  | 54260  | 2.9 | 9.128  | 2.4 | 4.856  | 2.6 | 0.321 | 1.0 | 0.37 | 1797 | 15 | 1795 | 22 | 1792 | 44  | 100 |
| 5PL13-58 | 33  | 25166  | 1.8 | 12.878 | 4.4 | 2.081  | 4.5 | 0.194 | 1.2 | 0.26 | 1145 | 12 | 1143 | 31 | 1138 | 87  | 101 |
| 5PL13-59 | 199 | 434651 | 1.7 | 10.012 | 0.6 | 3.882  | 1.5 | 0.282 | 1.4 | 0.92 | 1601 | 20 | 1610 | 12 | 1622 | 11  | 99  |
| 5PL13-60 | 153 | 248192 | 1.3 | 4.974  | 0.2 | 15.430 | 0.6 | 0.557 | 0.6 | 0.92 | 2853 | 13 | 2842 | 6  | 2835 | 4   | 101 |
| 5PL13-61 | 134 | 25319  | 1.8 | 7.699  | 0.6 | 6.971  | 2.6 | 0.389 | 2.6 | 0.97 | 2119 | 47 | 2108 | 24 | 2096 | 10  | 101 |
| 5PL13-62 | 128 | 169922 | 0.9 | 5.375  | 0.2 | 13.295 | 0.7 | 0.518 | 0.7 | 0.97 | 2692 | 16 | 2701 | 7  | 2707 | 3   | 99  |
| 5PL13-63 | 286 | 100490 | 3.4 | 11.830 | 0.6 | 2.508  | 1.5 | 0.215 | 1.4 | 0.92 | 1256 | 16 | 1274 | 11 | 1305 | 11  | 96  |
| 5PL13-64 | 334 | 123851 | 1.7 | 10.927 | 0.6 | 3.153  | 1.0 | 0.250 | 0.8 | 0.80 | 1438 | 11 | 1446 | 8  | 1457 | 12  | 99  |
| 5PL13-65 | 156 | 130533 | 1.2 | 9.831  | 0.7 | 4.217  | 1.4 | 0.301 | 1.3 | 0.89 | 1695 | 19 | 1677 | 12 | 1656 | 12  | 102 |
| 5PL13-66 | 288 | 284176 | 1.7 | 10.566 | 0.4 | 3.362  | 1.2 | 0.258 | 1.1 | 0.93 | 1478 | 15 | 1496 | 9  | 1521 | 8   | 97  |
| 5PL13-68 | 86  | 124040 | 3.0 | 9.121  | 0.7 | 4.873  | 1.0 | 0.322 | 0.7 | 0.71 | 1801 | 11 | 1798 | 8  | 1793 | 13  | 100 |
| 5PL13-69 | 82  | 12696  | 0.9 | 11.441 | 1.6 | 2.933  | 2.2 | 0.243 | 1.5 | 0.68 | 1404 | 19 | 1390 | 17 | 1369 | 31  | 103 |
| 5PL13-70 | 228 | 197523 | 6.7 | 11.947 | 1.0 | 2.489  | 1.7 | 0.216 | 1.4 | 0.82 | 1259 | 16 | 1269 | 12 | 1286 | 19  | 98  |
| 5PL13-71 | 79  | 208078 | 0.8 | 5.520  | 0.4 | 11.962 | 2.4 | 0.479 | 2.4 | 0.99 | 2522 | 50 | 2601 | 23 | 2664 | 6   | 95  |
| 5PL13-72 | 176 | 115066 | 3.5 | 9.131  | 0.4 | 4.891  | 1.0 | 0.324 | 0.9 | 0.93 | 1809 | 14 | 1801 | 8  | 1791 | 7   | 101 |
| 5PL13-74 | 86  | 53787  | 1.5 | 11.675 | 1.5 | 2.659  | 1.7 | 0.225 | 0.8 | 0.49 | 1309 | 10 | 1317 | 12 | 1330 | 28  | 98  |
| 5PL13-75 | 30  | 35984  | 1.1 | 9.723  | 3.4 | 4.118  | 3.7 | 0.290 | 1.5 | 0.41 | 1644 | 22 | 1658 | 31 | 1676 | 63  | 98  |
| 5PL13-76 | 84  | 126974 | 1.9 | 8.166  | 0.9 | 6.256  | 1.4 | 0.371 | 1.1 | 0.80 | 2032 | 20 | 2012 | 13 | 1992 | 15  | 102 |
| 5PL13-77 | 442 | 298608 | 1.6 | 11.451 | 0.3 | 2.851  | 0.9 | 0.237 | 0.9 | 0.94 | 1370 | 11 | 1369 | 7  | 1368 | 6   | 100 |
| 5PL13-78 | 98  | 14994  | 1.6 | 17.497 | 5.2 | 0.644  | 5.4 | 0.082 | 1.5 | 0.27 | 507  | 7  | 505  | 22 | 497  | 115 | 102 |
| 5PL13-79 | 105 | 52721  | 1.4 | 12.725 | 1.6 | 2.119  | 2.6 | 0.196 | 2.1 | 0.80 | 1151 | 22 | 1155 | 18 | 1162 | 31  | 99  |
| 5PL13-80 | 197 | 443367 | 3.4 | 9.162  | 0.5 | 4.885  | 1.1 | 0.325 | 1.0 | 0.90 | 1812 | 15 | 1800 | 9  | 1785 | 8   | 102 |
| 5PL13-81 | 111 | 168784 | 1.1 | 9.098  | 0.9 | 4.875  | 3.1 | 0.322 | 3.0 | 0.96 | 1798 | 46 | 1798 | 26 | 1798 | 15  | 100 |

|           |     |        |     |        |     |        |     |       |     |      |      |    |      |    |      |    |     |
|-----------|-----|--------|-----|--------|-----|--------|-----|-------|-----|------|------|----|------|----|------|----|-----|
| 5PL13-82  | 160 | 148597 | 1.5 | 9.474  | 0.3 | 4.510  | 1.2 | 0.310 | 1.1 | 0.96 | 1740 | 17 | 1733 | 10 | 1724 | 6  | 101 |
| 5PL13-83  | 36  | 49785  | 0.5 | 5.192  | 0.7 | 13.478 | 2.3 | 0.508 | 2.2 | 0.95 | 2646 | 47 | 2714 | 22 | 2765 | 12 | 96  |
| 5PL13-84  | 111 | 35855  | 1.0 | 13.904 | 2.1 | 1.637  | 2.3 | 0.165 | 0.7 | 0.33 | 985  | 7  | 985  | 14 | 984  | 43 | 100 |
| 5PL13-85  | 286 | 165660 | 1.6 | 9.351  | 0.3 | 4.620  | 1.0 | 0.313 | 1.0 | 0.96 | 1757 | 15 | 1753 | 9  | 1748 | 5  | 101 |
| 5PL13-86  | 163 | 289626 | 4.3 | 8.818  | 0.4 | 5.259  | 1.1 | 0.336 | 1.1 | 0.94 | 1869 | 17 | 1862 | 10 | 1855 | 7  | 101 |
| 5PL13-87  | 130 | 110302 | 2.1 | 10.582 | 1.0 | 3.404  | 1.3 | 0.261 | 0.8 | 0.62 | 1496 | 10 | 1505 | 10 | 1518 | 19 | 99  |
| 5PL13-88  | 47  | 42245  | 1.9 | 12.417 | 2.6 | 2.332  | 2.9 | 0.210 | 1.3 | 0.43 | 1229 | 14 | 1222 | 21 | 1210 | 52 | 102 |
| 5PL13-89  | 227 | 209526 | 1.2 | 9.495  | 0.3 | 4.516  | 1.2 | 0.311 | 1.2 | 0.98 | 1746 | 18 | 1734 | 10 | 1720 | 5  | 101 |
| 5PL13-91  | 241 | 139230 | 2.2 | 10.995 | 0.7 | 3.039  | 4.9 | 0.242 | 4.8 | 0.99 | 1399 | 61 | 1418 | 37 | 1446 | 14 | 97  |
| 5PL13-92  | 136 | 88225  | 3.0 | 9.222  | 0.5 | 4.723  | 1.8 | 0.316 | 1.7 | 0.97 | 1770 | 27 | 1771 | 15 | 1773 | 9  | 100 |
| 5PL13-93  | 26  | 9721   | 1.3 | 4.348  | 1.7 | 19.582 | 2.3 | 0.617 | 1.5 | 0.67 | 3100 | 38 | 3071 | 22 | 3052 | 28 | 102 |
| 5PL13-94  | 94  | 79750  | 1.1 | 11.871 | 1.0 | 2.554  | 1.4 | 0.220 | 1.0 | 0.69 | 1281 | 12 | 1288 | 11 | 1298 | 20 | 99  |
| 5PL13-95  | 238 | 216870 | 1.3 | 9.249  | 0.2 | 4.733  | 2.6 | 0.317 | 2.6 | 1.00 | 1777 | 41 | 1773 | 22 | 1768 | 4  | 101 |
| 5PL13-96  | 72  | 51518  | 1.8 | 8.915  | 1.0 | 5.207  | 1.4 | 0.337 | 1.0 | 0.70 | 1871 | 16 | 1854 | 12 | 1835 | 18 | 102 |
| 5PL13-97  | 40  | 178174 | 1.9 | 9.941  | 1.9 | 4.012  | 2.1 | 0.289 | 1.0 | 0.46 | 1638 | 14 | 1637 | 17 | 1635 | 35 | 100 |
| 5PL13-98  | 113 | 226486 | 1.8 | 9.882  | 0.5 | 4.072  | 1.2 | 0.292 | 1.1 | 0.92 | 1651 | 16 | 1649 | 10 | 1646 | 9  | 100 |
| 5PL13-99  | 128 | 154314 | 4.2 | 10.008 | 0.7 | 4.054  | 1.5 | 0.294 | 1.4 | 0.88 | 1663 | 20 | 1645 | 13 | 1623 | 14 | 102 |
| 5PL13-100 | 111 | 224908 | 1.1 | 8.892  | 0.5 | 5.128  | 1.2 | 0.331 | 1.1 | 0.89 | 1842 | 17 | 1841 | 10 | 1840 | 10 | 100 |

Rejected analyses

|          |      |        |     |        |       |        |      |       |      |      |      |     |      |    |      |    |           |
|----------|------|--------|-----|--------|-------|--------|------|-------|------|------|------|-----|------|----|------|----|-----------|
| 5PL13-47 | 614  | 147612 | 2.7 | 9.992  | 0.3   | 3.164  | 2.1  | 0.229 | 2.1  | 0.99 | 1331 | 25  | 1448 | 16 | 1626 | 5  | 82        |
| 5PL13-50 | 280  | 57893  | 3.0 | 9.873  | 0.5   | 3.446  | 9.7  | 0.247 | 9.6  | 1.00 | 1422 | 123 | 1515 | 76 | 1648 | 10 | 86        |
| 5PL13-23 | 0    | 239    | 0.7 | 1.346  | 116.1 | 23.277 | 1353 | 0.227 | 1348 | 1.00 | 1320 | NA  | 3239 | NA | NA   | NA | Rev disc. |
| 5PL13-28 | 278  | 255034 | 2.2 | 6.216  | 2.93  | 4.770  | 4.4  | 0.215 | 3.24 | 0.74 | 1256 | 37  | 1780 | 37 | NA   | NA | Disc.     |
| 5PL13-38 | 75   | 63848  | 1.2 | 9.839  | 0.96  | 4.571  | 5.4  | 0.326 | 5.35 | 0.98 | 1820 | 85  | 1744 | 45 | NA   | NA | Rev disc. |
| 5PL13-67 | 195  | 105861 | 1.8 | 11.264 | 0.60  | 3.212  | 2.9  | 0.262 | 2.81 | 0.98 | 1502 | 38  | 1460 | 22 | NA   | NA | Rev disc. |
| 5PL13-73 | 2808 | 6946   | 0.4 | 18.652 | 0.83  | 0.318  | 1.6  | 0.043 | 1.35 | 0.85 | 271  | 4   | 280  | 4  | NA   | NA | High 204  |
| 5PL13-90 | 102  | 45422  | 0.6 | 9.873  | 1.62  | 3.058  | 6.6  | 0.219 | 6.38 | 0.97 | 1277 | 74  | 1422 | 50 | NA   | NA | Disc.     |

09LB04 - Copper Basin Group, Little Copper Formation, 11T 716338E 4860083N NAD 27

| Spot     | U<br>(ppm) | <sup>206</sup> Pb<br><sup>204</sup> Pb | Th/U | Isotopic ratios                        |     |                                       |     | Corr<br>Coeff | Isotopic ages                         |      |                             |                             |                             | Conc.<br>% |      |    |     |
|----------|------------|--|------|--|-----|---------------------------------------|-----|---------------|---------------------------------------|------|-----------------------------|-----------------------------|-----------------------------|------------|------|----|-----|
|          |            |  |      | <sup>206</sup> Pb<br><sup>207</sup> Pb | % ± | <sup>207</sup> Pb<br><sup>235</sup> U | % ± |               | <sup>206</sup> Pb<br><sup>238</sup> U | % ±  | <sup>206</sup> Pb ±<br>(Ma) | <sup>207</sup> Pb ±<br>(Ma) | <sup>207</sup> Pb ±<br>(Ma) |            |      |    |     |
| 9LB04-2  | 93         | 103079                                 | 3.1  | 5.588                                  | 0.5 | 12.689                                | 1.2 | 0.514         | 1.1                                   | 0.90 | 2675                        | 24                          | 2657                        | 11         | 2643 | 9  | 101 |
| 9LB04-3  | 246        | 197102                                 | 1.1  | 8.264                                  | 0.5 | 6.089                                 | 0.6 | 0.365         | 0.4                                   | 0.61 | 2006                        | 7                           | 1989                        | 5          | 1971 | 9  | 102 |
| 9LB04-4  | 87         | 72326                                  | 1.7  | 8.923                                  | 1.8 | 5.215                                 | 1.9 | 0.337         | 0.7                                   | 0.35 | 1874                        | 11                          | 1855                        | 16         | 1833 | 32 | 102 |
| 9LB04-5  | 228        | 194117                                 | 2.6  | 9.157                                  | 0.4 | 4.853                                 | 1.4 | 0.322         | 1.4                                   | 0.96 | 1801                        | 22                          | 1794                        | 12         | 1786 | 7  | 101 |
| 9LB04-6  | 355        | 269296                                 | 3.2  | 8.038                                  | 0.4 | 6.158                                 | 2.4 | 0.359         | 2.4                                   | 0.99 | 1977                        | 41                          | 1998                        | 21         | 2020 | 6  | 98  |
| 9LB04-7  | 59         | 49814                                  | 1.0  | 8.837                                  | 1.5 | 4.909                                 | 2.3 | 0.315         | 1.8                                   | 0.78 | 1764                        | 28                          | 1804                        | 20         | 1851 | 27 | 95  |
| 9LB04-9  | 17         | 13681                                  | 6.9  | 8.956                                  | 3.7 | 4.837                                 | 4.1 | 0.314         | 1.7                                   | 0.42 | 1761                        | 27                          | 1791                        | 35         | 1827 | 68 | 96  |
| 9LB04-10 | 28         | 32244                                  | 1.2  | 5.109                                  | 0.9 | 14.153                                | 1.7 | 0.524         | 1.4                                   | 0.85 | 2718                        | 31                          | 2760                        | 16         | 2791 | 14 | 97  |
| 9LB04-11 | 77         | 130130                                 | 1.7  | 5.837                                  | 0.8 | 10.908                                | 1.6 | 0.462         | 1.4                                   | 0.86 | 2447                        | 29                          | 2515                        | 15         | 2571 | 14 | 95  |
| 9LB04-12 | 51         | 39014                                  | 3.9  | 8.844                                  | 2.5 | 5.039                                 | 2.9 | 0.323         | 1.6                                   | 0.55 | 1805                        | 25                          | 1826                        | 25         | 1849 | 44 | 98  |
| 9LB04-13 | 98         | 78564                                  | 2.9  | 8.719                                  | 1.1 | 5.286                                 | 3.2 | 0.334         | 3.0                                   | 0.94 | 1859                        | 48                          | 1867                        | 27         | 1875 | 20 | 99  |
| 9LB04-14 | 60         | 73067                                  | 0.4  | 5.435                                  | 0.5 | 13.260                                | 1.9 | 0.523         | 1.8                                   | 0.96 | 2710                        | 39                          | 2698                        | 18         | 2689 | 9  | 101 |
| 9LB04-15 | 138        | 90977                                  | 2.3  | 7.753                                  | 0.6 | 6.907                                 | 1.8 | 0.388         | 1.7                                   | 0.95 | 2115                        | 32                          | 2100                        | 16         | 2084 | 10 | 101 |
| 9LB04-16 | 309        | 256659                                 | 1.4  | 8.845                                  | 0.5 | 5.230                                 | 2.6 | 0.336         | 2.5                                   | 0.98 | 1865                        | 41                          | 1858                        | 22         | 1849 | 9  | 101 |
| 9LB04-17 | 335        | 199844                                 | 3.5  | 9.131                                  | 0.6 | 4.647                                 | 1.8 | 0.308         | 1.7                                   | 0.95 | 1730                        | 27                          | 1758                        | 15         | 1791 | 11 | 97  |
| 9LB04-18 | 166        | 167125                                 | 2.5  | 8.140                                  | 0.6 | 6.237                                 | 2.3 | 0.368         | 2.2                                   | 0.96 | 2021                        | 39                          | 2010                        | 20         | 1998 | 11 | 101 |
| 9LB04-19 | 102        | 63118                                  | 1.0  | 9.876                                  | 1.3 | 4.079                                 | 2.5 | 0.292         | 2.1                                   | 0.85 | 1652                        | 31                          | 1650                        | 20         | 1647 | 24 | 100 |
| 9LB04-20 | 74         | 28976                                  | 1.3  | 9.084                                  | 0.8 | 5.059                                 | 2.0 | 0.333         | 1.8                                   | 0.91 | 1854                        | 29                          | 1829                        | 17         | 1801 | 15 | 103 |
| 9LB04-21 | 122        | 84141                                  | 2.3  | 9.617                                  | 1.0 | 4.308                                 | 2.0 | 0.301         | 1.7                                   | 0.86 | 1694                        | 25                          | 1695                        | 16         | 1696 | 19 | 100 |
| 9LB04-22 | 136        | 139829                                 | 1.9  | 9.214                                  | 0.7 | 4.777                                 | 2.1 | 0.319         | 2.0                                   | 0.95 | 1786                        | 30                          | 1781                        | 17         | 1775 | 12 | 101 |

|          |     |        |     |        |     |        |     |       |     |      |      |    |      |    |      |    |     |
|----------|-----|--------|-----|--------|-----|--------|-----|-------|-----|------|------|----|------|----|------|----|-----|
| 9LB04-23 | 228 | 107402 | 1.4 | 8.430  | 0.3 | 5.738  | 1.5 | 0.351 | 1.5 | 0.98 | 1939 | 25 | 1937 | 13 | 1935 | 5  | 100 |
| 9LB04-24 | 121 | 99418  | 2.9 | 9.199  | 0.7 | 4.823  | 1.1 | 0.322 | 0.8 | 0.71 | 1799 | 12 | 1789 | 9  | 1778 | 14 | 101 |
| 9LB04-26 | 170 | 121367 | 1.6 | 8.581  | 0.9 | 5.625  | 1.7 | 0.350 | 1.4 | 0.84 | 1935 | 24 | 1920 | 15 | 1904 | 17 | 102 |
| 9LB04-29 | 191 | 223616 | 3.7 | 9.048  | 0.4 | 4.969  | 2.2 | 0.326 | 2.2 | 0.98 | 1819 | 35 | 1814 | 19 | 1808 | 7  | 101 |
| 9LB04-30 | 121 | 80691  | 2.5 | 8.065  | 0.8 | 6.180  | 1.8 | 0.362 | 1.6 | 0.89 | 1989 | 27 | 2002 | 16 | 2014 | 15 | 99  |
| 9LB04-31 | 114 | 123783 | 1.8 | 5.468  | 0.5 | 12.917 | 1.8 | 0.512 | 1.8 | 0.96 | 2666 | 38 | 2674 | 17 | 2679 | 9  | 100 |
| 9LB04-32 | 296 | 217723 | 2.1 | 8.886  | 0.5 | 5.236  | 2.0 | 0.337 | 1.9 | 0.97 | 1874 | 31 | 1858 | 17 | 1841 | 8  | 102 |
| 9LB04-33 | 38  | 20496  | 0.5 | 8.262  | 2.3 | 5.975  | 3.2 | 0.358 | 2.1 | 0.68 | 1973 | 36 | 1972 | 27 | 1971 | 41 | 100 |
| 9LB04-34 | 47  | 27891  | 0.8 | 8.601  | 2.2 | 5.381  | 2.4 | 0.336 | 0.9 | 0.38 | 1866 | 14 | 1882 | 20 | 1900 | 39 | 98  |
| 9LB04-35 | 137 | 91969  | 1.6 | 9.143  | 1.1 | 4.787  | 2.2 | 0.317 | 1.9 | 0.87 | 1777 | 30 | 1783 | 19 | 1789 | 20 | 99  |
| 9LB04-36 | 93  | 52103  | 1.2 | 8.751  | 0.8 | 5.267  | 2.3 | 0.334 | 2.1 | 0.93 | 1859 | 35 | 1863 | 20 | 1868 | 15 | 99  |
| 9LB04-37 | 68  | 60802  | 2.9 | 9.150  | 2.1 | 4.836  | 2.9 | 0.321 | 2.0 | 0.70 | 1794 | 32 | 1791 | 25 | 1788 | 38 | 100 |
| 9LB04-38 | 41  | 30517  | 0.8 | 8.958  | 3.8 | 5.025  | 4.2 | 0.327 | 1.7 | 0.41 | 1821 | 27 | 1824 | 36 | 1826 | 70 | 100 |
| 9LB04-39 | 145 | 110894 | 3.1 | 9.171  | 0.6 | 4.697  | 2.8 | 0.312 | 2.7 | 0.97 | 1753 | 42 | 1767 | 23 | 1783 | 12 | 98  |
| 9LB04-40 | 160 | 125588 | 2.8 | 8.076  | 0.8 | 6.194  | 2.4 | 0.363 | 2.3 | 0.94 | 1995 | 39 | 2004 | 21 | 2012 | 14 | 99  |
| 9LB04-41 | 64  | 40122  | 2.5 | 8.900  | 1.3 | 5.003  | 2.3 | 0.323 | 1.9 | 0.83 | 1804 | 31 | 1820 | 20 | 1838 | 24 | 98  |
| 9LB04-43 | 65  | 26140  | 1.2 | 8.373  | 2.3 | 5.594  | 2.8 | 0.340 | 1.7 | 0.59 | 1885 | 27 | 1915 | 24 | 1948 | 41 | 97  |
| 9LB04-46 | 61  | 38230  | 1.0 | 8.421  | 1.9 | 5.726  | 2.7 | 0.350 | 2.0 | 0.73 | 1933 | 33 | 1935 | 23 | 1938 | 33 | 100 |
| 9LB04-47 | 35  | 21531  | 1.7 | 10.746 | 4.9 | 3.438  | 5.3 | 0.268 | 1.8 | 0.35 | 1530 | 25 | 1513 | 41 | 1489 | 93 | 103 |
| 9LB04-48 | 329 | 68959  | 2.5 | 5.911  | 0.8 | 10.293 | 5.1 | 0.441 | 5.0 | 0.99 | 2356 | 99 | 2461 | 47 | 2549 | 14 | 92  |
| 9LB04-49 | 97  | 61921  | 1.4 | 8.820  | 1.2 | 5.138  | 3.6 | 0.329 | 3.4 | 0.94 | 1832 | 54 | 1842 | 31 | 1854 | 21 | 99  |
| 9LB04-50 | 54  | 50050  | 1.0 | 8.926  | 1.8 | 5.035  | 2.4 | 0.326 | 1.6 | 0.67 | 1819 | 25 | 1825 | 20 | 1833 | 32 | 99  |
| 9LB04-51 | 131 | 101364 | 1.3 | 8.145  | 0.7 | 6.087  | 2.1 | 0.360 | 2.0 | 0.94 | 1980 | 34 | 1988 | 19 | 1997 | 13 | 99  |
| 9LB04-52 | 29  | 13321  | 0.8 | 7.999  | 2.0 | 6.194  | 2.8 | 0.359 | 1.9 | 0.69 | 1979 | 33 | 2004 | 24 | 2029 | 35 | 98  |
| 9LB04-53 | 169 | 193277 | 1.3 | 5.472  | 0.3 | 13.159 | 1.4 | 0.522 | 1.3 | 0.98 | 2709 | 29 | 2691 | 13 | 2678 | 5  | 101 |
| 9LB04-54 | 821 | 295369 | 2.5 | 9.515  | 0.4 | 4.301  | 2.0 | 0.297 | 2.0 | 0.98 | 1676 | 29 | 1694 | 17 | 1716 | 7  | 98  |
| 9LB04-55 | 287 | 233640 | 3.6 | 8.187  | 0.4 | 5.639  | 3.0 | 0.335 | 3.0 | 0.99 | 1862 | 49 | 1922 | 26 | 1988 | 7  | 94  |
| 9LB04-56 | 53  | 41147  | 1.0 | 8.883  | 2.7 | 4.985  | 3.4 | 0.321 | 2.1 | 0.63 | 1795 | 34 | 1817 | 29 | 1841 | 48 | 98  |
| 9LB04-57 | 309 | 273398 | 5.5 | 9.198  | 0.4 | 4.718  | 1.9 | 0.315 | 1.9 | 0.98 | 1764 | 29 | 1770 | 16 | 1778 | 7  | 99  |

Rejected analyses

|          |     |        |     |        |      |       |       |       |      |      |      |     |      |    |      |     |              |
|----------|-----|--------|-----|--------|------|-------|-------|-------|------|------|------|-----|------|----|------|-----|--------------|
| 9LB04-1  | 216 | 185102 | 3.1 | 5.945  | 1.0  | 9.349 | 5.1   | 0.403 | 5.0  | 0.98 | 2183 | 93  | 2373 | 47 | 2540 | 17  | 86           |
| 9LB04-25 | 207 | 120301 | 2.2 | 5.890  | 0.4  | 8.861 | 2.9   | 0.379 | 2.9  | 0.99 | 2069 | 51  | 2324 | 26 | 2555 | 6   | 81           |
| 9LB04-27 | 20  | 28178  | 1.6 | 9.381  | 6.2  | 4.530 | 6.3   | 0.308 | 1.3  | 0.20 | 1732 | 20  | 1736 | 53 | 1742 | 114 | 99           |
| 9LB04-28 | 26  | 27433  | 1.1 | 9.264  | 4.4  | 4.685 | 4.7   | 0.315 | 1.6  | 0.34 | 1764 | 25  | 1765 | 39 | 1765 | 80  | 100          |
| 9LB04-44 | 244 | 141681 | 3.9 | 9.225  | 0.8  | 3.598 | 2.6   | 0.241 | 2.5  | 0.95 | 1391 | 31  | 1549 | 21 | 1773 | 15  | 78           |
| 9LB04-45 | 332 | 41448  | 3.3 | 7.493  | 1.8  | 5.011 | 3.5   | 0.272 | 3.0  | 0.85 | 1552 | 41  | 1821 | 30 | 2144 | 32  | 72           |
| 9LB04-8  | 319 | 76481  | 2.4 | 8.883  | 0.56 | 4.278 | 11.53 | 0.276 | 11.5 | 1.00 | 1569 | 160 | 1689 | 95 | NA   | NA  | High 6/8 err |
| 9LB04-42 | 39  | 22017  | 1.3 | 12.590 | 6.30 | 2.077 | 6.406 | 0.190 | 1.15 | 0.18 | 1120 | 12  | 1141 | 44 | NA   | NA  | High 6/7 err |
| 9LB04-58 | 536 | 16912  | 1.9 | 8.772  | 1.66 | 3.624 | 2.731 | 0.231 | 2.17 | 0.79 | 1337 | 26  | 1555 | 22 | NA   | NA  | High 6/8 err |
| 9LB04-59 | 199 | 157846 | 3.4 | 7.913  | 0.56 | 6.617 | 1.564 | 0.380 | 1.46 | 0.93 | 2075 | 26  | 2062 | 14 | NA   | NA  | High 6/8 err |

05PL15 - Copper Basin Group, Argosy Creek Formation, 11T 0720078E 4860323N NAD 27

| Spot    | U<br>(ppm) | <sup>206</sup> Pb<br><sup>204</sup> Pb | Th/U | Isotopic ratios                        |     |                                       |     | Corr<br>Coeff | Isotopic ages                         |      |                             |                             | Conc.<br>% |                             |      |    |     |
|---------|------------|--|------|--|-----|---------------------------------------|-----|---------------|---------------------------------------|------|-----------------------------|-----------------------------|------------|-----------------------------|------|----|-----|
|         |            |  |      | <sup>206</sup> Pb<br><sup>207</sup> Pb | % ± | <sup>207</sup> Pb<br><sup>235</sup> U | % ± |               | <sup>206</sup> Pb<br><sup>238</sup> U | % ±  | <sup>206</sup> Pb ±<br>(Ma) | <sup>207</sup> Pb ±<br>(Ma) |            | <sup>207</sup> Pb ±<br>(Ma) |      |    |     |
| Spot 91 | 21         | 22269                                  | 0.8  | 13.112                                 | 1.8 | 1.8792                                | 4.4 | 0.1787        | 4.0                                   | 0.91 | 1060                        | 39                          | 1074       | 29                          | 1102 | 37 | 96  |
| Spot 16 | 40         | 33108                                  | 2.6  | 10.819                                 | 0.7 | 3.3349                                | 3.5 | 0.2617        | 3.5                                   | 0.98 | 1498                        | 46                          | 1489       | 28                          | 1476 | 13 | 101 |
| Spot 90 | 39         | 164344                                 | 2.1  | 9.370                                  | 0.7 | 4.5775                                | 3.8 | 0.3111        | 3.8                                   | 0.98 | 1746                        | 58                          | 1745       | 32                          | 1744 | 13 | 100 |
| Spot 62 | 43         | 41576                                  | 1.1  | 9.353                                  | 1.0 | 4.6725                                | 3.2 | 0.3169        | 3.0                                   | 0.95 | 1775                        | 47                          | 1762       | 26                          | 1748 | 18 | 102 |
| Spot 9  | 348        | 88432                                  | 2.0  | 9.289                                  | 0.6 | 4.6405                                | 2.0 | 0.3126        | 1.9                                   | 0.96 | 1754                        | 29                          | 1757       | 17                          | 1760 | 11 | 100 |
| Spot 69 | 88         | 1283466                                | 0.7  | 9.276                                  | 0.8 | 4.6716                                | 3.2 | 0.3143        | 3.1                                   | 0.97 | 1762                        | 48                          | 1762       | 27                          | 1763 | 15 | 100 |
| Spot 84 | 171        | 239119                                 | 1.9  | 9.261                                  | 0.8 | 4.5638                                | 2.2 | 0.3065        | 2.0                                   | 0.93 | 1724                        | 30                          | 1743       | 18                          | 1766 | 15 | 98  |

|          |     |         |     |       |     |        |     |        |     |      |      |    |      |    |      |    |     |
|----------|-----|---------|-----|-------|-----|--------|-----|--------|-----|------|------|----|------|----|------|----|-----|
| Spot 101 | 66  | 39623   | 0.7 | 9.252 | 0.7 | 4.7002 | 3.0 | 0.3154 | 2.9 | 0.97 | 1767 | 45 | 1767 | 25 | 1767 | 14 | 100 |
| Spot 41  | 120 | 152178  | 2.3 | 9.251 | 0.7 | 4.7140 | 2.5 | 0.3163 | 2.4 | 0.96 | 1772 | 38 | 1770 | 21 | 1768 | 12 | 100 |
| Spot 29  | 250 | 138799  | 2.6 | 9.237 | 0.7 | 4.6732 | 2.0 | 0.3131 | 1.9 | 0.94 | 1756 | 29 | 1762 | 17 | 1770 | 13 | 99  |
| Spot 24  | 50  | 32806   | 0.8 | 9.235 | 0.8 | 4.7826 | 3.2 | 0.3203 | 3.1 | 0.97 | 1791 | 48 | 1782 | 27 | 1771 | 14 | 101 |
| Spot 93  | 138 | 351708  | 2.9 | 9.217 | 0.7 | 4.7540 | 2.4 | 0.3178 | 2.3 | 0.96 | 1779 | 36 | 1777 | 20 | 1774 | 13 | 100 |
| Spot 82  | 105 | 409605  | 1.9 | 9.170 | 0.7 | 4.7174 | 2.2 | 0.3137 | 2.1 | 0.95 | 1759 | 32 | 1770 | 18 | 1784 | 13 | 99  |
| Spot 30  | 155 | 657707  | 1.3 | 9.148 | 0.7 | 4.7462 | 2.4 | 0.3149 | 2.3 | 0.95 | 1765 | 35 | 1775 | 20 | 1788 | 13 | 99  |
| Spot 108 | 61  | 24808   | 1.6 | 9.097 | 0.6 | 5.0282 | 2.9 | 0.3317 | 2.8 | 0.98 | 1847 | 45 | 1824 | 24 | 1798 | 11 | 103 |
| Spot 56  | 58  | 18698   | 1.4 | 9.093 | 0.7 | 4.8442 | 3.1 | 0.3195 | 3.0 | 0.98 | 1787 | 47 | 1793 | 26 | 1799 | 12 | 99  |
| Spot 3   | 67  | 89948   | 1.2 | 9.080 | 0.8 | 5.0155 | 3.0 | 0.3303 | 2.9 | 0.96 | 1840 | 46 | 1822 | 25 | 1802 | 14 | 102 |
| Spot 13  | 96  | 90021   | 3.4 | 9.070 | 0.5 | 4.8735 | 2.3 | 0.3206 | 2.3 | 0.98 | 1793 | 35 | 1798 | 20 | 1804 | 9  | 99  |
| Spot 14  | 31  | 9174    | 0.5 | 9.050 | 0.8 | 5.1597 | 3.2 | 0.3387 | 3.1 | 0.97 | 1880 | 50 | 1846 | 27 | 1808 | 14 | 104 |
| Spot 67  | 55  | 1570494 | 1.2 | 9.039 | 0.7 | 4.9536 | 3.4 | 0.3247 | 3.3 | 0.98 | 1813 | 52 | 1811 | 29 | 1810 | 12 | 100 |
| Spot 71  | 94  | 42492   | 1.5 | 9.032 | 0.8 | 5.0571 | 2.5 | 0.3313 | 2.3 | 0.95 | 1845 | 38 | 1829 | 21 | 1811 | 14 | 102 |
| Spot 103 | 48  | 12611   | 1.9 | 9.009 | 0.9 | 4.7781 | 3.3 | 0.3122 | 3.2 | 0.96 | 1752 | 49 | 1781 | 28 | 1816 | 17 | 96  |
| Spot 63  | 277 | 120977  | 4.1 | 9.004 | 0.8 | 4.4610 | 2.2 | 0.2913 | 2.0 | 0.93 | 1648 | 29 | 1724 | 18 | 1817 | 15 | 91  |
| Spot 81  | 25  | 22042   | 1.7 | 8.989 | 0.9 | 4.8823 | 4.1 | 0.3183 | 4.0 | 0.98 | 1781 | 62 | 1799 | 34 | 1820 | 16 | 98  |
| Spot 100 | 48  | 29186   | 1.9 | 8.988 | 0.7 | 5.1198 | 3.2 | 0.3337 | 3.1 | 0.98 | 1857 | 50 | 1839 | 27 | 1820 | 12 | 102 |
| Spot 53  | 165 | 196779  | 1.9 | 8.987 | 0.8 | 4.9772 | 2.4 | 0.3244 | 2.2 | 0.94 | 1811 | 35 | 1815 | 20 | 1820 | 15 | 100 |
| Spot 34  | 90  | 65187   | 2.7 | 8.929 | 0.9 | 5.0875 | 3.0 | 0.3294 | 2.9 | 0.95 | 1836 | 46 | 1834 | 26 | 1832 | 17 | 100 |
| Spot 44  | 100 | 50133   | 1.7 | 8.922 | 0.7 | 5.1061 | 2.6 | 0.3304 | 2.5 | 0.96 | 1840 | 41 | 1837 | 22 | 1833 | 13 | 100 |
| Spot 55  | 73  | 30362   | 1.3 | 8.902 | 0.7 | 4.9977 | 3.0 | 0.3227 | 2.9 | 0.97 | 1803 | 46 | 1819 | 25 | 1838 | 13 | 98  |
| Spot 66  | 61  | 73669   | 1.3 | 8.898 | 0.7 | 5.1794 | 3.4 | 0.3342 | 3.3 | 0.98 | 1859 | 54 | 1849 | 29 | 1838 | 12 | 101 |
| Spot 105 | 118 | 105563  | 1.3 | 8.891 | 0.8 | 5.1638 | 2.2 | 0.3330 | 2.0 | 0.93 | 1853 | 33 | 1847 | 19 | 1840 | 14 | 101 |
| Spot 72  | 47  | 56060   | 1.3 | 8.888 | 0.8 | 5.0647 | 3.3 | 0.3265 | 3.2 | 0.97 | 1821 | 51 | 1830 | 28 | 1840 | 15 | 99  |
| Spot 38  | 91  | 13873   | 1.2 | 8.888 | 0.7 | 5.1170 | 3.3 | 0.3298 | 3.2 | 0.97 | 1838 | 51 | 1839 | 28 | 1840 | 13 | 100 |
| Spot 43  | 30  | 31583   | 1.2 | 8.857 | 0.9 | 5.1587 | 4.1 | 0.3314 | 4.0 | 0.97 | 1845 | 64 | 1846 | 35 | 1847 | 17 | 100 |
| Spot 31  | 28  | 36398   | 1.1 | 8.819 | 1.0 | 5.2414 | 3.9 | 0.3353 | 3.8 | 0.96 | 1864 | 61 | 1859 | 34 | 1854 | 19 | 101 |
| Spot 58  | 109 | 39246   | 2.0 | 8.786 | 0.7 | 5.4047 | 2.6 | 0.3444 | 2.5 | 0.96 | 1908 | 41 | 1886 | 22 | 1861 | 13 | 103 |
| Spot 88  | 225 | 92201   | 3.2 | 8.759 | 0.6 | 5.1516 | 2.6 | 0.3273 | 2.5 | 0.97 | 1825 | 39 | 1845 | 22 | 1867 | 12 | 98  |
| Spot 97  | 74  | 31711   | 1.9 | 8.643 | 0.7 | 5.4853 | 2.5 | 0.3438 | 2.4 | 0.96 | 1905 | 40 | 1898 | 22 | 1891 | 13 | 101 |
| Spot 87  | 36  | 32232   | 0.8 | 8.640 | 0.8 | 5.6180 | 2.7 | 0.3520 | 2.5 | 0.95 | 1944 | 42 | 1919 | 23 | 1891 | 15 | 103 |
| Spot 20  | 76  | 97066   | 1.1 | 8.635 | 0.7 | 5.3335 | 2.9 | 0.3340 | 2.8 | 0.97 | 1858 | 45 | 1874 | 25 | 1892 | 13 | 98  |
| Spot 61  | 75  | 29145   | 2.0 | 8.625 | 0.9 | 5.4639 | 3.1 | 0.3418 | 2.9 | 0.96 | 1895 | 48 | 1895 | 26 | 1895 | 16 | 100 |
| Spot 107 | 76  | 115981  | 0.9 | 8.599 | 0.7 | 5.6001 | 2.4 | 0.3492 | 2.3 | 0.96 | 1931 | 39 | 1916 | 21 | 1900 | 13 | 102 |
| Spot 32  | 36  | 35894   | 1.4 | 8.591 | 0.8 | 5.5984 | 3.6 | 0.3488 | 3.5 | 0.97 | 1929 | 59 | 1916 | 31 | 1902 | 15 | 101 |
| Spot 28  | 62  | 97501   | 0.9 | 8.582 | 0.8 | 5.3861 | 2.8 | 0.3353 | 2.6 | 0.96 | 1864 | 43 | 1883 | 24 | 1903 | 15 | 98  |
| Spot 25  | 45  | 12168   | 0.7 | 8.577 | 0.7 | 5.5913 | 3.0 | 0.3478 | 3.0 | 0.97 | 1924 | 49 | 1915 | 26 | 1905 | 12 | 101 |
| Spot 4   | 176 | 130620  | 1.5 | 8.562 | 0.8 | 5.5052 | 2.6 | 0.3419 | 2.5 | 0.96 | 1896 | 41 | 1901 | 23 | 1908 | 14 | 99  |
| Spot 36  | 40  | 24999   | 1.2 | 8.548 | 0.7 | 5.6875 | 3.6 | 0.3526 | 3.5 | 0.98 | 1947 | 59 | 1929 | 31 | 1911 | 13 | 102 |
| Spot 37  | 45  | 32687   | 0.8 | 8.544 | 0.9 | 5.5719 | 2.8 | 0.3453 | 2.7 | 0.95 | 1912 | 44 | 1912 | 24 | 1912 | 16 | 100 |
| Spot 99  | 129 | 36012   | 0.9 | 8.527 | 0.6 | 5.5903 | 2.1 | 0.3457 | 2.0 | 0.96 | 1914 | 33 | 1915 | 18 | 1915 | 10 | 100 |
| Spot 49  | 70  | 75851   | 1.2 | 8.525 | 0.7 | 5.5083 | 2.9 | 0.3406 | 2.8 | 0.97 | 1889 | 45 | 1902 | 25 | 1915 | 12 | 99  |
| Spot 110 | 74  | 82712   | 2.6 | 8.523 | 0.7 | 5.5642 | 2.4 | 0.3439 | 2.3 | 0.96 | 1906 | 38 | 1911 | 21 | 1916 | 12 | 99  |
| Spot 94  | 127 | 33724   | 1.2 | 8.522 | 0.8 | 5.5385 | 2.7 | 0.3423 | 2.5 | 0.95 | 1898 | 42 | 1907 | 23 | 1916 | 15 | 99  |
| Spot 2   | 34  | 27895   | 1.3 | 8.520 | 0.8 | 5.5943 | 3.1 | 0.3457 | 3.0 | 0.96 | 1914 | 50 | 1915 | 27 | 1917 | 15 | 100 |
| Spot 89  | 74  | 94860   | 1.9 | 8.511 | 0.8 | 5.6260 | 3.3 | 0.3473 | 3.2 | 0.97 | 1922 | 54 | 1920 | 29 | 1918 | 14 | 100 |
| Spot 70  | 92  | 228897  | 1.8 | 8.481 | 0.8 | 5.5112 | 2.3 | 0.3390 | 2.2 | 0.94 | 1882 | 35 | 1902 | 20 | 1925 | 14 | 98  |
| Spot 5   | 112 | 154572  | 0.5 | 8.478 | 0.8 | 5.6774 | 2.7 | 0.3491 | 2.5 | 0.96 | 1930 | 42 | 1928 | 23 | 1925 | 14 | 100 |
| Spot 42  | 33  | 97803   | 0.4 | 8.472 | 0.7 | 5.6951 | 3.3 | 0.3499 | 3.2 | 0.98 | 1934 | 54 | 1931 | 28 | 1927 | 12 | 100 |
| Spot 7   | 172 | 319279  | 0.9 | 8.470 | 0.6 | 5.5513 | 1.8 | 0.3410 | 1.7 | 0.95 | 1892 | 28 | 1909 | 16 | 1927 | 10 | 98  |
| Spot 78  | 213 | 77702   | 0.8 | 8.464 | 0.6 | 5.5440 | 1.9 | 0.3403 | 1.8 | 0.95 | 1888 | 29 | 1907 | 16 | 1928 | 10 | 98  |
| Spot 64  | 121 | 40904   | 0.7 | 8.461 | 0.6 | 5.7582 | 2.5 | 0.3533 | 2.4 | 0.97 | 1951 | 40 | 1940 | 21 | 1929 | 11 | 101 |

|          |     |          |     |       |     |         |     |        |     |      |      |     |      |    |      |    |     |
|----------|-----|----------|-----|-------|-----|---------|-----|--------|-----|------|------|-----|------|----|------|----|-----|
| Spot 76  | 162 | 57318    | 0.9 | 8.455 | 0.6 | 5.4720  | 1.8 | 0.3356 | 1.7 | 0.94 | 1865 | 28  | 1896 | 16 | 1930 | 11 | 97  |
| Spot 27  | 191 | 374903   | 0.9 | 8.417 | 0.7 | 5.5702  | 2.2 | 0.3401 | 2.1 | 0.95 | 1887 | 35  | 1911 | 19 | 1938 | 13 | 97  |
| Spot 18  | 44  | 56334    | 1.2 | 8.408 | 0.7 | 5.6959  | 3.2 | 0.3474 | 3.1 | 0.98 | 1922 | 51  | 1931 | 27 | 1940 | 13 | 99  |
| Spot 54  | 140 | 120488   | 1.2 | 8.397 | 0.7 | 5.6508  | 2.3 | 0.3441 | 2.2 | 0.95 | 1906 | 36  | 1924 | 20 | 1943 | 13 | 98  |
| Spot 95  | 166 | 78236    | 2.6 | 8.339 | 0.7 | 5.6667  | 2.3 | 0.3427 | 2.2 | 0.96 | 1900 | 36  | 1926 | 20 | 1955 | 12 | 97  |
| Spot 26  | 32  | 65055    | 0.6 | 8.285 | 0.9 | 5.8598  | 3.8 | 0.3521 | 3.6 | 0.97 | 1945 | 61  | 1955 | 33 | 1967 | 16 | 99  |
| Spot 22  | 64  | 29261    | 1.4 | 8.230 | 0.7 | 5.9267  | 2.9 | 0.3538 | 2.8 | 0.97 | 1953 | 48  | 1965 | 25 | 1978 | 12 | 99  |
| Spot 12  | 53  | 16336    | 1.7 | 8.227 | 0.8 | 6.1182  | 3.5 | 0.3650 | 3.4 | 0.98 | 2006 | 59  | 1993 | 31 | 1979 | 14 | 101 |
| Spot 68  | 38  | 9520     | 1.3 | 8.217 | 0.8 | 6.0271  | 3.3 | 0.3592 | 3.2 | 0.97 | 1978 | 55  | 1980 | 29 | 1981 | 14 | 100 |
| Spot 11  | 69  | 41690    | 1.3 | 8.149 | 0.8 | 6.1186  | 3.4 | 0.3616 | 3.2 | 0.97 | 1990 | 56  | 1993 | 29 | 1996 | 15 | 100 |
| Spot 8   | 34  | 75889    | 1.4 | 7.916 | 0.7 | 6.7431  | 2.8 | 0.3871 | 2.7 | 0.96 | 2110 | 48  | 2078 | 24 | 2047 | 13 | 103 |
| Spot 46  | 107 | 64884    | 2.4 | 7.883 | 0.7 | 6.5529  | 2.3 | 0.3746 | 2.2 | 0.96 | 2051 | 38  | 2053 | 20 | 2055 | 12 | 100 |
| Spot 79  | 93  | 144661   | 1.9 | 7.782 | 1.1 | 6.7086  | 2.8 | 0.3786 | 2.6 | 0.92 | 2070 | 45  | 2074 | 25 | 2078 | 20 | 100 |
| Spot 47  | 52  | 206809   | 2.0 | 7.771 | 0.8 | 6.7126  | 3.4 | 0.3783 | 3.3 | 0.97 | 2069 | 59  | 2074 | 30 | 2080 | 13 | 99  |
| Spot 23  | 51  | 126592   | 1.2 | 7.594 | 0.7 | 7.1043  | 3.4 | 0.3913 | 3.3 | 0.98 | 2129 | 60  | 2125 | 30 | 2121 | 12 | 100 |
| Spot 104 | 62  | 201834   | 1.3 | 6.814 | 0.7 | 8.7100  | 3.1 | 0.4305 | 3.0 | 0.97 | 2308 | 58  | 2308 | 28 | 2308 | 12 | 100 |
| Spot 15  | 94  | 55804    | 2.4 | 6.803 | 0.7 | 8.7550  | 1.9 | 0.4320 | 1.8 | 0.93 | 2315 | 35  | 2313 | 18 | 2311 | 13 | 100 |
| Spot 77  | 41  | 404703   | 0.9 | 6.626 | 0.7 | 8.7759  | 3.4 | 0.4217 | 3.3 | 0.98 | 2268 | 63  | 2315 | 31 | 2356 | 12 | 96  |
| Spot 35  | 67  | 83952    | 0.9 | 6.478 | 0.8 | 9.6234  | 2.9 | 0.4521 | 2.8 | 0.97 | 2405 | 57  | 2399 | 27 | 2395 | 13 | 100 |
| Spot 85  | 59  | 88271    | 1.4 | 6.391 | 0.7 | 9.7684  | 3.5 | 0.4528 | 3.4 | 0.98 | 2408 | 68  | 2413 | 32 | 2418 | 12 | 100 |
| Spot 21  | 301 | 296937   | 2.5 | 6.174 | 0.6 | 10.3266 | 2.4 | 0.4624 | 2.3 | 0.97 | 2450 | 47  | 2464 | 22 | 2476 | 10 | 99  |
| Spot 17  | 147 | 101939   | 1.0 | 6.108 | 0.7 | 10.5316 | 2.4 | 0.4666 | 2.3 | 0.95 | 2468 | 47  | 2483 | 22 | 2494 | 12 | 99  |
| Spot 83  | 96  | 364919   | 2.7 | 5.972 | 0.6 | 10.7920 | 2.2 | 0.4674 | 2.1 | 0.97 | 2472 | 43  | 2505 | 20 | 2532 | 10 | 98  |
| Spot 50  | 142 | 24475419 | 1.5 | 5.883 | 0.9 | 10.8720 | 2.5 | 0.4639 | 2.4 | 0.94 | 2457 | 49  | 2512 | 24 | 2557 | 14 | 96  |
| Spot 96  | 79  | 67342    | 2.6 | 5.883 | 0.6 | 11.1804 | 2.3 | 0.4770 | 2.2 | 0.96 | 2514 | 46  | 2538 | 22 | 2557 | 10 | 98  |
| Spot 6   | 69  | 341870   | 1.9 | 5.872 | 0.6 | 11.6245 | 2.7 | 0.4951 | 2.7 | 0.98 | 2593 | 57  | 2575 | 25 | 2561 | 9  | 101 |
| Spot 52  | 150 | 340630   | 2.9 | 5.863 | 0.5 | 11.5157 | 2.5 | 0.4897 | 2.4 | 0.98 | 2569 | 52  | 2566 | 23 | 2563 | 8  | 100 |
| Spot 74  | 162 | 136211   | 2.3 | 5.835 | 0.5 | 11.2435 | 2.9 | 0.4758 | 2.8 | 0.98 | 2509 | 58  | 2544 | 27 | 2571 | 9  | 98  |
| Spot 57  | 92  | 99327    | 1.7 | 5.815 | 0.5 | 11.9873 | 2.0 | 0.5056 | 2.0 | 0.97 | 2638 | 43  | 2603 | 19 | 2577 | 8  | 102 |
| Spot 106 | 83  | 66363    | 2.2 | 5.810 | 0.6 | 11.6498 | 2.9 | 0.4909 | 2.8 | 0.98 | 2575 | 60  | 2577 | 27 | 2578 | 10 | 100 |
| Spot 73  | 148 | 144858   | 1.0 | 5.788 | 0.7 | 11.6042 | 2.2 | 0.4872 | 2.1 | 0.94 | 2558 | 44  | 2573 | 20 | 2585 | 12 | 99  |
| Spot 19  | 51  | 47948    | 2.3 | 5.604 | 0.6 | 12.3966 | 3.0 | 0.5038 | 3.0 | 0.98 | 2630 | 64  | 2635 | 29 | 2639 | 11 | 100 |
| Spot 39  | 29  | 43057    | 1.2 | 5.602 | 1.0 | 12.1161 | 4.3 | 0.4923 | 4.2 | 0.97 | 2580 | 90  | 2613 | 41 | 2639 | 16 | 98  |
| Spot 80  | 18  | 11088    | 0.9 | 5.585 | 0.8 | 12.1868 | 4.1 | 0.4936 | 4.0 | 0.98 | 2586 | 86  | 2619 | 38 | 2644 | 13 | 98  |
| Spot 102 | 59  | 23797    | 1.2 | 5.556 | 0.8 | 9.9467  | 5.7 | 0.4008 | 5.6 | 0.99 | 2173 | 104 | 2430 | 53 | 2653 | 12 | 82  |
| Spot 98  | 61  | 735192   | 1.2 | 5.554 | 0.7 | 12.6446 | 3.4 | 0.5093 | 3.3 | 0.98 | 2654 | 72  | 2654 | 32 | 2653 | 11 | 100 |
| Spot 10  | 28  | 17509    | 0.7 | 5.544 | 0.7 | 12.5408 | 4.3 | 0.5042 | 4.2 | 0.99 | 2632 | 92  | 2646 | 40 | 2656 | 11 | 99  |
| Spot 109 | 101 | 105704   | 1.1 | 5.449 | 0.6 | 13.4923 | 2.2 | 0.5332 | 2.1 | 0.96 | 2755 | 48  | 2715 | 21 | 2685 | 10 | 103 |
| Spot 92  | 120 | 82609    | 0.5 | 5.394 | 0.5 | 13.0343 | 2.4 | 0.5100 | 2.3 | 0.98 | 2656 | 51  | 2682 | 23 | 2702 | 9  | 98  |
| Spot 51  | 38  | 32791    | 4.2 | 5.272 | 0.7 | 13.5825 | 2.8 | 0.5194 | 2.7 | 0.97 | 2696 | 61  | 2721 | 27 | 2739 | 11 | 98  |
| Spot 59  | 67  | 56024    | 1.7 | 5.094 | 0.7 | 14.5037 | 2.3 | 0.5358 | 2.2 | 0.95 | 2766 | 49  | 2783 | 22 | 2796 | 12 | 99  |
| Spot 45  | 43  | 110504   | 2.6 | 5.013 | 0.8 | 15.3627 | 4.4 | 0.5585 | 4.3 | 0.98 | 2860 | 100 | 2838 | 42 | 2822 | 12 | 101 |
| Spot 75  | 73  | 869038   | 2.3 | 4.921 | 0.8 | 14.0687 | 3.0 | 0.5021 | 2.9 | 0.97 | 2623 | 62  | 2754 | 28 | 2852 | 13 | 92  |
| Spot 48  | 47  | 170574   | 1.2 | 4.726 | 0.7 | 16.8187 | 3.5 | 0.5765 | 3.4 | 0.98 | 2934 | 81  | 2925 | 34 | 2918 | 11 | 101 |
| Spot 65  | 77  | 40653    | 2.3 | 4.564 | 0.7 | 17.2157 | 3.1 | 0.5699 | 3.0 | 0.97 | 2907 | 70  | 2947 | 29 | 2974 | 12 | 98  |

24PL09 - Salmon River assemblage, 11T 0695329E 4910395N NAD 27

| Spot      | U<br>(ppm) | <sup>206</sup> Pb<br><sup>204</sup> Pb | Th/U | Isotopic ratios                        |     |                                       |     | Isotopic ages                         |     |               |  | Conc.<br>% |  |   |      |    |     |
|-----------|------------|--|------|--|-----|---------------------------------------|-----|---------------------------------------|-----|---------------|--|------------|--|---|------|----|-----|
|           |            |  |      | <sup>206</sup> Pb<br><sup>207</sup> Pb | % ± | <sup>207</sup> Pb<br><sup>235</sup> U | % ± | <sup>206</sup> Pb<br><sup>238</sup> U | % ± | Corr<br>Coeff | <sup>206</sup> Pb ±<br><sup>238</sup> U (Ma) |            | <sup>207</sup> Pb ±<br><sup>235</sup> U (Ma) | <sup>207</sup> Pb ±<br><sup>206</sup> Pb (Ma) |      |    |     |
| 24PL09-12 | 558        | 71338                                  | 3.6  | 17.082                                 | 1.3 | 0.731                                 | 2.9 | 0.091                                 | 2.6 | 0.89          | 559  | 14         | 557  | 12  | 550  | 28 | 102 |
| 24PL09-34 | 91         | 25893                                  | 3.3  | 13.581                                 | 4.5 | 1.763                                 | 5.5 | 0.174                                 | 3.1 | 0.56          | 1032   | 30         | 1032   | 36  | 1031 | 92 | 100 |
| 24PL09-41 | 28         | 12155                                  | 1.0  | 9.303                                  | 3.0 | 4.734                                 | 3.2 | 0.319                                 | 1.3 | 0.41          | 1787   | 21         | 1773   | 27  | 1757 | 54 | 102 |

|           |     |        |       |       |     |       |     |       |     |      |      |     |      |    |      |     |     |
|-----------|-----|--------|-------|-------|-----|-------|-----|-------|-----|------|------|-----|------|----|------|-----|-----|
| 24PL09-89 | 41  | 27201  | 1.2   | 9.054 | 3.0 | 5.048 | 3.6 | 0.331 | 1.9 | 0.54 | 1846 | 31  | 1827 | 30 | 1807 | 55  | 102 |
| 24PL09-1  | 104 | 43643  | 1.8   | 9.013 | 0.6 | 4.897 | 1.8 | 0.320 | 1.6 | 0.93 | 1790 | 26  | 1802 | 15 | 1815 | 11  | 99  |
| 24PL09-69 | 84  | 53819  | 2.1   | 8.971 | 0.8 | 5.033 | 3.2 | 0.327 | 3.1 | 0.97 | 1826 | 50  | 1825 | 27 | 1824 | 14  | 100 |
| 24PL09-60 | 77  | 37054  | 1.3   | 8.963 | 1.6 | 4.986 | 2.3 | 0.324 | 1.6 | 0.70 | 1810 | 25  | 1817 | 19 | 1825 | 30  | 99  |
| 24PL09-46 | 61  | 24613  | 1.1   | 8.962 | 1.9 | 5.253 | 3.1 | 0.341 | 2.4 | 0.78 | 1893 | 40  | 1861 | 26 | 1825 | 35  | 104 |
| 24PL09-65 | 40  | 27278  | 2.0   | 8.933 | 4.0 | 4.916 | 5.6 | 0.318 | 4.0 | 0.71 | 1782 | 62  | 1805 | 48 | 1831 | 72  | 97  |
| 24PL09-74 | 39  | 17393  | 0.6   | 8.932 | 2.1 | 5.129 | 2.8 | 0.332 | 1.9 | 0.67 | 1849 | 30  | 1841 | 24 | 1831 | 38  | 101 |
| 24PL09-29 | 91  | 59915  | 0.9   | 8.925 | 1.6 | 5.054 | 2.4 | 0.327 | 1.8 | 0.75 | 1825 | 28  | 1828 | 20 | 1833 | 29  | 100 |
| 24PL09-36 | 89  | 49021  | 1.6   | 8.920 | 1.6 | 5.140 | 2.8 | 0.333 | 2.3 | 0.82 | 1851 | 37  | 1843 | 24 | 1834 | 29  | 101 |
| 24PL09-96 | 140 | 69845  | 2.4   | 8.911 | 1.2 | 5.215 | 2.3 | 0.337 | 2.0 | 0.85 | 1872 | 32  | 1855 | 20 | 1836 | 22  | 102 |
| 24PL09-52 | 74  | 32750  | 1.4   | 8.909 | 1.8 | 4.898 | 2.8 | 0.316 | 2.1 | 0.76 | 1772 | 33  | 1802 | 24 | 1836 | 33  | 97  |
| 24PL09-51 | 141 | 78392  | 2.2   | 8.905 | 1.1 | 5.084 | 2.8 | 0.328 | 2.6 | 0.92 | 1830 | 41  | 1833 | 24 | 1837 | 20  | 100 |
| 24PL09-79 | 85  | 63584  | 1.6   | 8.898 | 1.5 | 5.186 | 2.2 | 0.335 | 1.6 | 0.73 | 1861 | 26  | 1850 | 19 | 1838 | 27  | 101 |
| 24PL09-66 | 150 | 91001  | 2.4   | 8.897 | 0.7 | 5.153 | 2.1 | 0.333 | 2.0 | 0.95 | 1851 | 32  | 1845 | 18 | 1838 | 13  | 101 |
| 24PL09-19 | 67  | 33564  | 1.0   | 8.897 | 1.6 | 4.866 | 1.8 | 0.314 | 0.9 | 0.49 | 1760 | 14  | 1796 | 15 | 1839 | 29  | 96  |
| 24PL09-8  | 157 | 78323  | 1.6   | 8.887 | 0.5 | 5.034 | 1.6 | 0.324 | 1.5 | 0.95 | 1811 | 24  | 1825 | 13 | 1840 | 9   | 98  |
| 24PL09-67 | 171 | 103342 | 3.3   | 8.885 | 0.7 | 5.026 | 1.9 | 0.324 | 1.8 | 0.94 | 1809 | 29  | 1824 | 16 | 1841 | 12  | 98  |
| 24PL09-47 | 188 | 78508  | 1.4   | 8.882 | 0.5 | 5.116 | 2.0 | 0.330 | 2.0 | 0.97 | 1836 | 31  | 1839 | 17 | 1842 | 9   | 100 |
| 24PL09-35 | 63  | 38281  | 1.1   | 8.877 | 2.7 | 5.080 | 4.5 | 0.327 | 3.6 | 0.80 | 1824 | 58  | 1833 | 38 | 1843 | 49  | 99  |
| 24PL09-37 | 162 | 54110  | 1.9   | 8.867 | 0.9 | 5.099 | 1.6 | 0.328 | 1.4 | 0.85 | 1828 | 22  | 1836 | 14 | 1845 | 16  | 99  |
| 24PL09-64 | 367 | 210218 | 2.2   | 8.864 | 0.4 | 5.221 | 2.2 | 0.336 | 2.1 | 0.98 | 1866 | 35  | 1856 | 18 | 1845 | 7   | 101 |
| 24PL09-22 | 89  | 36720  | 1.2   | 8.863 | 0.5 | 4.982 | 1.7 | 0.320 | 1.6 | 0.96 | 1791 | 25  | 1816 | 14 | 1845 | 8   | 97  |
| 24PL09-11 | 200 | 152708 | 2.4   | 8.861 | 0.6 | 5.023 | 2.2 | 0.323 | 2.1 | 0.96 | 1803 | 33  | 1823 | 19 | 1846 | 11  | 98  |
| 24PL09-94 | 23  | 12612  | 0.8   | 8.834 | 4.8 | 5.113 | 4.9 | 0.328 | 0.9 | 0.18 | 1827 | 14  | 1838 | 41 | 1851 | 86  | 99  |
| 24PL09-87 | 98  | 54891  | 2.9   | 8.833 | 1.2 | 4.950 | 2.9 | 0.317 | 2.6 | 0.91 | 1775 | 41  | 1811 | 25 | 1852 | 22  | 96  |
| 24PL09-7  | 83  | 43299  | 1.3   | 8.827 | 1.5 | 5.011 | 2.7 | 0.321 | 2.3 | 0.83 | 1794 | 36  | 1821 | 23 | 1853 | 27  | 97  |
| 24PL09-93 | 66  | 35314  | 1.0   | 8.825 | 2.1 | 5.329 | 2.6 | 0.341 | 1.5 | 0.58 | 1892 | 24  | 1873 | 22 | 1853 | 38  | 102 |
| 24PL09-24 | 69  | 30969  | 1.4   | 8.818 | 1.1 | 5.304 | 3.0 | 0.339 | 2.8 | 0.93 | 1883 | 46  | 1869 | 26 | 1855 | 20  | 102 |
| 24PL09-15 | 263 | 137686 | 2.0   | 8.807 | 0.4 | 5.084 | 1.8 | 0.325 | 1.8 | 0.98 | 1813 | 28  | 1833 | 15 | 1857 | 7   | 98  |
| 24PL09-90 | 67  | 37485  | 1.7   | 8.788 | 1.7 | 5.225 | 2.0 | 0.333 | 1.0 | 0.52 | 1853 | 17  | 1857 | 17 | 1861 | 31  | 100 |
| 24PL09-82 | 174 | 99045  | 3.8   | 8.779 | 0.4 | 5.318 | 2.5 | 0.339 | 2.4 | 0.99 | 1880 | 40  | 1872 | 21 | 1863 | 7   | 101 |
| 24PL09-68 | 82  | 44009  | 2.6   | 8.722 | 1.2 | 5.231 | 2.8 | 0.331 | 2.5 | 0.90 | 1843 | 41  | 1858 | 24 | 1874 | 22  | 98  |
| 24PL09-70 | 312 | 139875 | 2.2   | 8.665 | 0.3 | 5.387 | 2.6 | 0.339 | 2.6 | 0.99 | 1880 | 43  | 1883 | 23 | 1886 | 5   | 100 |
| 24PL09-4  | 34  | 5498   | 0.5   | 8.653 | 3.2 | 5.088 | 3.7 | 0.319 | 1.9 | 0.52 | 1786 | 30  | 1834 | 31 | 1889 | 57  | 95  |
| 24PL09-16 | 50  | 31186  | 151.0 | 8.631 | 1.5 | 5.353 | 1.6 | 0.335 | 0.7 | 0.41 | 1863 | 11  | 1877 | 14 | 1893 | 26  | 98  |
| 24PL09-49 | 69  | 38400  | 1.6   | 8.630 | 1.7 | 5.518 | 2.7 | 0.345 | 2.1 | 0.77 | 1912 | 35  | 1903 | 23 | 1894 | 31  | 101 |
| 24PL09-12 | 56  | 32807  | 0.9   | 8.587 | 2.2 | 5.461 | 3.2 | 0.340 | 2.4 | 0.75 | 1887 | 40  | 1895 | 28 | 1903 | 39  | 99  |
| 24PL09-21 | 50  | 21228  | 1.9   | 8.567 | 2.5 | 5.388 | 2.7 | 0.335 | 1.0 | 0.37 | 1861 | 16  | 1883 | 23 | 1907 | 45  | 98  |
| 24PL09-42 | 391 | 143473 | 3.9   | 8.533 | 0.4 | 5.631 | 1.2 | 0.348 | 1.2 | 0.95 | 1927 | 19  | 1921 | 11 | 1914 | 7   | 101 |
| 24PL09-18 | 63  | 33751  | 1.8   | 8.485 | 1.2 | 5.562 | 1.8 | 0.342 | 1.4 | 0.75 | 1897 | 23  | 1910 | 16 | 1924 | 22  | 99  |
| 24PL09-54 | 126 | 64881  | 2.5   | 8.468 | 1.0 | 5.646 | 2.5 | 0.347 | 2.3 | 0.91 | 1919 | 37  | 1923 | 21 | 1927 | 18  | 100 |
| 24PL09-23 | 55  | 17463  | 1.6   | 8.447 | 2.2 | 5.549 | 2.7 | 0.340 | 1.6 | 0.59 | 1886 | 26  | 1908 | 23 | 1932 | 39  | 98  |
| 24PL09-32 | 210 | 116159 | 1.9   | 8.432 | 0.6 | 5.540 | 1.6 | 0.339 | 1.5 | 0.93 | 1881 | 24  | 1907 | 14 | 1935 | 10  | 97  |
| 24PL09-99 | 64  | 39422  | 1.5   | 8.408 | 1.4 | 5.720 | 2.2 | 0.349 | 1.7 | 0.77 | 1929 | 28  | 1934 | 19 | 1940 | 25  | 99  |
| 24PL09-31 | 74  | 39265  | 1.0   | 8.405 | 1.0 | 5.551 | 2.2 | 0.338 | 2.0 | 0.88 | 1879 | 32  | 1908 | 19 | 1941 | 18  | 97  |
| 24PL09-57 | 122 | 81965  | 1.8   | 8.399 | 1.1 | 5.761 | 1.6 | 0.351 | 1.2 | 0.73 | 1939 | 20  | 1941 | 14 | 1942 | 20  | 100 |
| 24PL09-33 | 127 | 67715  | 1.5   | 8.378 | 0.6 | 5.701 | 1.8 | 0.346 | 1.7 | 0.94 | 1917 | 28  | 1932 | 15 | 1947 | 11  | 98  |
| 24PL09-71 | 78  | 22597  | 1.4   | 8.372 | 1.6 | 5.669 | 3.4 | 0.344 | 2.9 | 0.87 | 1907 | 48  | 1927 | 29 | 1948 | 29  | 98  |
| 24PL09-26 | 29  | 3209   | 0.4   | 8.176 | 5.9 | 5.417 | 6.1 | 0.321 | 1.4 | 0.22 | 1796 | 21  | 1887 | 52 | 1990 | 106 | 90  |
| 24PL09-43 | 75  | 50708  | 1.5   | 8.092 | 1.2 | 6.206 | 1.9 | 0.364 | 1.5 | 0.78 | 2002 | 25  | 2005 | 16 | 2009 | 21  | 100 |
| 24PL09-98 | 66  | 34005  | 3.4   | 8.006 | 1.3 | 6.564 | 7.3 | 0.381 | 7.2 | 0.98 | 2082 | 128 | 2055 | 64 | 2028 | 22  | 103 |
| 24PL09-80 | 124 | 63140  | 2.9   | 7.890 | 0.7 | 6.481 | 1.6 | 0.371 | 1.4 | 0.89 | 2033 | 24  | 2043 | 14 | 2053 | 13  | 99  |
| 24PL09-44 | 39  | 23156  | 1.1   | 7.802 | 2.4 | 6.677 | 2.9 | 0.378 | 1.6 | 0.54 | 2066 | 28  | 2070 | 26 | 2073 | 43  | 100 |

|                   |     |        |     |        |       |         |       |        |      |      |      |     |      |     |      |    |              |
|-------------------|-----|--------|-----|--------|-------|---------|-------|--------|------|------|------|-----|------|-----|------|----|--------------|
| 24PL09-100        | 120 | 95160  | 1.6 | 7.800  | 0.8   | 6.816   | 1.8   | 0.386  | 1.6  | 0.89 | 2102 | 29  | 2088 | 16  | 2074 | 14 | 101          |
| 24PL09-13         | 158 | 77288  | 2.6 | 7.785  | 0.8   | 6.580   | 1.7   | 0.372  | 1.5  | 0.88 | 2036 | 26  | 2057 | 15  | 2077 | 14 | 98           |
| 24PL09-5          | 86  | 44567  | 1.9 | 7.782  | 0.8   | 6.510   | 2.3   | 0.367  | 2.2  | 0.93 | 2017 | 38  | 2047 | 21  | 2077 | 15 | 97           |
| 24PL09-56         | 118 | 76746  | 2.0 | 7.781  | 0.8   | 6.331   | 7.0   | 0.357  | 7.0  | 0.99 | 1969 | 118 | 2023 | 62  | 2078 | 14 | 95           |
| 24PL09-76         | 78  | 51377  | 1.1 | 7.781  | 1.4   | 6.734   | 2.2   | 0.380  | 1.7  | 0.76 | 2076 | 30  | 2077 | 20  | 2078 | 25 | 100          |
| 24PL09-97         | 100 | 61221  | 1.4 | 7.777  | 1.5   | 6.702   | 2.1   | 0.378  | 1.6  | 0.73 | 2067 | 28  | 2073 | 19  | 2079 | 26 | 99           |
| 24PL09-73         | 146 | 65552  | 2.7 | 7.776  | 0.8   | 6.777   | 2.0   | 0.382  | 1.8  | 0.91 | 2087 | 32  | 2083 | 17  | 2079 | 14 | 100          |
| 24PL09-2          | 56  | 28639  | 1.0 | 7.771  | 0.8   | 6.690   | 1.6   | 0.377  | 1.4  | 0.87 | 2062 | 25  | 2071 | 14  | 2080 | 14 | 99           |
| 24PL09-40         | 188 | 98163  | 1.1 | 7.766  | 0.5   | 6.841   | 2.2   | 0.385  | 2.1  | 0.98 | 2101 | 38  | 2091 | 19  | 2081 | 8  | 101          |
| 24PL09-3          | 49  | 27222  | 1.3 | 7.765  | 1.7   | 6.683   | 2.1   | 0.376  | 1.2  | 0.57 | 2059 | 21  | 2070 | 19  | 2081 | 30 | 99           |
| 24PL09-84         | 45  | 27104  | 1.3 | 7.713  | 1.9   | 6.726   | 3.1   | 0.376  | 2.5  | 0.80 | 2059 | 44  | 2076 | 27  | 2093 | 33 | 98           |
| 24PL09-9          | 68  | 19697  | 1.6 | 7.690  | 1.6   | 6.667   | 2.7   | 0.372  | 2.2  | 0.81 | 2038 | 38  | 2068 | 24  | 2099 | 27 | 97           |
| 24PL09-92         | 64  | 26809  | 2.7 | 7.683  | 1.2   | 6.821   | 2.4   | 0.380  | 2.1  | 0.86 | 2077 | 37  | 2088 | 21  | 2100 | 21 | 99           |
| 24PL09-28         | 145 | 82430  | 1.6 | 7.640  | 0.7   | 6.910   | 3.1   | 0.383  | 3.1  | 0.97 | 2090 | 54  | 2100 | 28  | 2110 | 13 | 99           |
| 24PL09-55         | 120 | 57145  | 2.4 | 7.154  | 1.0   | 7.858   | 1.6   | 0.408  | 1.2  | 0.77 | 2205 | 22  | 2215 | 14  | 2224 | 17 | 99           |
| 24PL09-75         | 52  | 29423  | 2.6 | 6.892  | 0.9   | 8.447   | 1.5   | 0.422  | 1.2  | 0.79 | 2271 | 23  | 2280 | 14  | 2289 | 16 | 99           |
| 24PL09-10         | 99  | 64929  | 2.8 | 6.697  | 0.8   | 8.357   | 9.6   | 0.406  | 9.5  | 1.00 | 2196 | 178 | 2271 | 87  | 2338 | 13 | 94           |
| 24PL09-95         | 117 | 98043  | 1.9 | 6.501  | 0.5   | 9.685   | 1.8   | 0.457  | 1.8  | 0.96 | 2425 | 36  | 2405 | 17  | 2389 | 8  | 102          |
| 24PL09-50         | 121 | 88645  | 3.1 | 5.998  | 0.5   | 10.956  | 2.2   | 0.477  | 2.1  | 0.97 | 2513 | 44  | 2519 | 20  | 2525 | 9  | 100          |
| 24PL09-6          | 148 | 83868  | 2.9 | 5.989  | 0.5   | 10.220  | 1.6   | 0.444  | 1.6  | 0.96 | 2368 | 31  | 2455 | 15  | 2527 | 8  | 94           |
| 24PL09-85         | 68  | 44678  | 1.2 | 5.785  | 0.7   | 11.689  | 3.2   | 0.490  | 3.1  | 0.97 | 2572 | 66  | 2580 | 30  | 2586 | 12 | 99           |
| 24PL09-61         | 52  | 38837  | 1.6 | 5.473  | 0.7   | 12.689  | 2.6   | 0.504  | 2.5  | 0.97 | 2630 | 55  | 2657 | 25  | 2678 | 11 | 98           |
| 24PL09-30         | 144 | 108972 | 1.1 | 5.438  | 0.5   | 12.840  | 1.6   | 0.506  | 1.6  | 0.95 | 2641 | 34  | 2668 | 16  | 2688 | 8  | 98           |
| 24PL09-39         | 129 | 102151 | 0.7 | 5.392  | 0.3   | 13.380  | 2.4   | 0.523  | 2.3  | 0.99 | 2713 | 52  | 2707 | 22  | 2702 | 5  | 100          |
| 24PL09-38         | 103 | 68587  | 0.8 | 5.373  | 0.3   | 13.253  | 1.6   | 0.516  | 1.6  | 0.98 | 2684 | 34  | 2698 | 15  | 2708 | 5  | 99           |
| 24PL09-58         | 103 | 19060  | 0.8 | 5.343  | 0.6   | 11.936  | 3.3   | 0.463  | 3.2  | 0.98 | 2451 | 65  | 2599 | 30  | 2717 | 10 | 90           |
| 24PL09-91         | 71  | 49084  | 1.2 | 5.337  | 1.2   | 13.548  | 2.4   | 0.524  | 2.1  | 0.87 | 2718 | 47  | 2719 | 23  | 2719 | 20 | 100          |
| 24PL09-59         | 132 | 94496  | 1.0 | 5.328  | 0.5   | 13.693  | 2.6   | 0.529  | 2.5  | 0.98 | 2738 | 56  | 2729 | 24  | 2722 | 8  | 101          |
| 24PL09-53         | 112 | 70372  | 1.3 | 5.324  | 0.4   | 13.854  | 1.9   | 0.535  | 1.8  | 0.97 | 2762 | 41  | 2740 | 18  | 2723 | 7  | 101          |
| 24PL09-86         | 56  | 50827  | 1.5 | 5.251  | 0.9   | 13.834  | 2.7   | 0.527  | 2.5  | 0.94 | 2728 | 56  | 2738 | 26  | 2746 | 16 | 99           |
| 24PL09-63         | 32  | 30257  | 2.6 | 5.243  | 1.4   | 13.661  | 4.8   | 0.520  | 4.5  | 0.95 | 2697 | 100 | 2726 | 45  | 2748 | 24 | 98           |
| 24PL09-81         | 74  | 57472  | 1.6 | 4.677  | 1.2   | 15.288  | 1.8   | 0.519  | 1.3  | 0.73 | 2693 | 29  | 2833 | 17  | 2935 | 20 | 92           |
| 24PL09-78         | 133 | 108355 | 1.6 | 3.915  | 0.4   | 22.431  | 1.3   | 0.637  | 1.2  | 0.95 | 3177 | 31  | 3203 | 13  | 3219 | 7  | 99           |
| Rejected analyses |     |        |     |        |       |         |       |        |      |      |      |     |      |     |      |    |              |
| 24PL09-72         | 152 | 20892  | 3.2 | 12.178 | 1.7   | 1.870   | 3.1   | 0.165  | 2.7  | 0.85 | 986  | 24  | 1071 | 21  | 1248 | 32 | 79           |
| 24PL09-83         | 110 | 47863  | 1.7 | 9.057  | 1.5   | 3.873   | 2.4   | 0.254  | 1.8  | 0.77 | 1461 | 24  | 1608 | 19  | 1806 | 28 | 81           |
| 24PL09-62         | 134 | 39890  | 2.2 | 8.754  | 1.2   | 3.880   | 3.3   | 0.246  | 3.1  | 0.93 | 1420 | 39  | 1610 | 27  | 1868 | 22 | 76           |
| 24PL09-27         | 112 | 33404  | 0.9 | 8.478  | 1.8   | 4.971   | 3.7   | 0.306  | 3.2  | 0.88 | 1719 | 49  | 1814 | 31  | 1925 | 31 | 89           |
| 24PL09-25         | 87  | 28379  | 1.0 | 6.623  | 0.6   | 7.864   | 2.5   | 0.378  | 2.5  | 0.97 | 2066 | 43  | 2216 | 23  | 2357 | 10 | 88           |
| 24PL09-14         | 402 | 33756  | 2.4 | 9.458  | 0.37  | 2.5300  | 0.77  | 0.1735 | 0.67 | 0.88 | 1032 | 6   | 1281 | 6   | NA   | NA | Disc.        |
| 24PL09-17         | 84  | 5548   | 1.8 | 8.139  | 12.87 | 4.9080  | 18.9  | 0.2897 | 13.9 | 0.73 | 1640 | 201 | 1804 | 161 | NA   | NA | High 6/8 err |
| 24PL09-20         | 230 | 4060   | 2.1 | 8.543  | 2.73  | 2.9708  | 3.9   | 0.1841 | 2.7  | 0.71 | 1089 | 27  | 1400 | 29  | NA   | NA | Disc.        |
| 24PL09-45         | 58  | 13726  | 1.3 | 8.863  | 3.08  | 3.1439  | 837.1 | 0.2021 | 837  | 1.00 | 1187 | NA  | 1444 | NA  | NA   | NA | High 6/8 err |
| 24PL09-48         | 289 | 2678   | 1.2 | 5.205  | 1.86  | 11.3941 | 2.1   | 0.4301 | 1.0  | 0.47 | 2306 | 19  | 2556 | 20  | NA   | NA | High 204     |
| 24PL09-77         | 260 | 23045  | 0.8 | 8.513  | 1.60  | 3.1687  | 10.7  | 0.1956 | 10.5 | 0.99 | 1152 | 111 | 1450 | 82  | NA   | NA | Disc.        |
| 24PL09-88         | 68  | 17303  | 1.1 | 13.664 | 6.46  | 1.7158  | 6.8   | 0.1700 | 2.2  | 0.33 | 1012 | 21  | 1014 | 44  | NA   | NA | High 6/7 err |

Data Repository Item 2016277

Table DR3 – LA-ICP-MS detrital zircon Hf isotope data

### Analytical Methods

Zircon Hf isotope geochemistry was conducted by laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS) at the Arizona LaserChron Center (Gehrels and Pecha, 2014; see also Arizona LaserChron Center website for methodology and data reduction protocols – <https://sites.google.com/a/laserchron.org/laserchron/home/>). Hf isotope analyses were conducted with a Nu HR ICPMS connected to a New Wave UP193HE laser (2009-2010) or a Photon Machines Analyte G2 excimer laser (2011). Instrument settings are established first by analysis of 10 ppb solutions of JMC475 and a Spex Hf solution, and then by analysis of 10 ppb solutions containing Spex Hf, Yb, and Lu. The mixtures range in concentration of Yb and Lu, with  $^{176}\text{(Yb+Lu)}$  up to 70% of the  $^{176}\text{Hf}$ . When all solutions yield  $^{176}\text{Hf}/^{177}\text{Hf}$  of  $\sim 0.28216$ , instrument settings are optimized for laser ablation analyses and seven different standard zircons (Mud Tank, 91500, Temora, R33, FC52, Plesovice, and Sri Lanka) are analyzed. These standards are included with unknowns on the same epoxy mounts. When precision and accuracy are acceptable, unknowns are analyzed using exactly the same acquisition parameters.

Laser ablation analyses are conducted with a laser beam diameter of 40 microns, with the ablation pits located on top of the U-Pb analysis pits. CL images are used to ensure that the ablation pits do not overlap multiple age domains or inclusions. Each acquisition consists of one 40-second integration on backgrounds (on peaks with no laser firing) followed by 60 one-second integrations with the laser firing. Using a typical laser fluence of  $\sim 5 \text{ J/cm}^2$  and pulse rate of 7 hz, the ablation rate is  $\sim 0.8$  microns per second. Each standard is analyzed once for every  $\sim 20$  unknowns.

Isotope fractionation is accounted for using the method of Woodhead et al. (2004):  $\beta\text{Hf}$  is determined from the measured  $^{179}\text{Hf}/^{177}\text{Hf}$ ;  $\beta\text{Yb}$  is determined from the measured  $^{173}\text{Yb}/^{171}\text{Yb}$  (except for very low Yb signals);  $\beta\text{Lu}$  is assumed to be the same as  $\beta\text{Yb}$ ; and an exponential formula is used for fractionation correction. Yb and Lu interferences are corrected by measurement of  $^{176}\text{Yb}/^{171}\text{Yb}$  and  $^{176}\text{Lu}/^{175}\text{Lu}$  (respectively), as advocated by Woodhead et al. (2004). Critical isotope ratios are  $^{179}\text{Hf}/^{177}\text{Hf} = 0.73250$  (Patchett & Tatsumoto, 1980);  $^{173}\text{Yb}/^{171}\text{Yb} = 1.132338$  (Vervoort et al., 2004);  $^{176}\text{Yb}/^{171}\text{Yb} = 0.901691$  (Vervoort et al., 2004; Amelin and Davis, 2005);  $^{176}\text{Lu}/^{175}\text{Lu} = 0.02653$  (Patchett, 1983). All corrections are done line-by-line. For very low Yb signals,  $\beta\text{Hf}$  is used for fractionation of Yb isotopes. The corrected  $^{176}\text{Hf}/^{177}\text{Hf}$  values are filtered for outliers (2-sigma filter), and the average and standard error are calculated from the resulting  $\sim 58$  integrations. There is no capability to use only a portion of the acquired data.

All solutions, standards, and unknowns analyzed during a session are reduced together. The cutoff for using  $\beta\text{Hf}$  versus  $\beta\text{Yb}$  is determined by monitoring the average offset of the standards from their known values, and the cutoff is set at the minimum offset. For most data sets, this is achieved at  $\sim 6 \text{ mv}$  of  $^{171}\text{Yb}$ . For sessions in which the

standards yield  $^{176}\text{Hf}/^{177}\text{Hf}$  values that are shifted consistently from the known values, a correction factor is applied to the  $^{176}\text{Hf}/^{177}\text{Hf}$  of all standards and unknowns. This correction factor, which is not necessary for most sessions, averages 1 epsilon unit.

The  $^{176}\text{Hf}/^{177}\text{Hf}$  at time of crystallization is calculated from measurement of present-day  $^{176}\text{Hf}/^{177}\text{Hf}$  and  $^{176}\text{Lu}/^{177}\text{Hf}$ , using the decay constant of  $^{176}\text{Lu}$  ( $\lambda = 1.867e^{-11}$ ) from Scherer et al. (2001) and Söderlund et al. (2004).

### References

Amelin, Y., and Davis, W.J., 2005, Geochemical test for branching decay of  $^{176}\text{Lu}$ : *Geochimica et Cosmochimica Acta*, v. 69, p. 465-473.

Cecil, M.R., Gehrels, G.E., Ducea, M.N., and Patchett, P.J., 2011, U-Pb-Hf characterization of the central Coast Mountains batholith: implications for petrogenesis and crustal evolution: *Lithosphere*, v. 3, p. 247-260.

Patchett, P.J., 1983, Importance of the Lu-Hf isotopic system in studies of planetary chronology and chemical evolution: *Geochimica et Cosmochimica Acta*, v. 47, p. 81-91.

Patchett, P.J., and Tatsumoto, M., 1980, A routine high-precision method for Lu-Hf isotope geochemistry and chronology: *Contributions to Mineralogy and Petrology*, v. 75, 263-267.

Scherer, E., Münker, C., and Mezger, K., 2001, Calibration of the Lutetium-Hafnium Clock: *Science*, v. , p. 683-687.

Söderlund, U., Patchett, P.J., Vervoort, J.D., and Isachsen, C.E., 2004, The  $^{176}\text{Lu}$  decay constant determined by Lu-Hf and U-Pb isotope systematics of Precambrian mafic intrusions: *Earth and Planetary Science Letters*, v. 219, p. 311-324.

Vervoort, J.D., Patchett, P.J., Söderlund, U. & Baker, M., 2004, The isotopic composition of Yb and the precise and accurate determination of Lu concentrations and Lu/Hf ratios by isotope dilution using MC-ICPMS. *Geochem Geophys Geosyst.* DOI 2004GC000721RR.

Woodhead, J., Hergt, J., Shelley, M., Eggins, S., and Kemp, R., 2004, Zircon Hf-isotope analysis with an excimer laser, depth profiling, ablation of complex geometries, and concomitant age estimation: *Chemical Geology*, v. 209, p. 121-135.

**Table DR3. LA-ICP-MS zircon Hf isotope results from the Arizona Laserchron Center**

**11LB04 - Milligen Formation, Independence Sandstone, 11T 0719246E 4839103N NAD 27**

| Spot       | $(^{176}\text{Yb} + ^{176}\text{Lu}) / ^{176}\text{Hf}$ (%) | Volts Hf | $^{176}\text{Hf}/^{177}\text{Hf}$ | $\pm$ (1s) | $^{176}\text{Lu}/^{177}\text{Hf}$ | $^{176}\text{Hf}/^{177}\text{Hf}$ (T) | E-Hf (0) | E-Hf (0) $\pm$ (1s) | E-Hf (T) | Age (Ma) |
|------------|---|----------|-----------------------------------|------------|-----------------------------------|---------------------------------------|----------|---------------------|----------|----------|
| 11LB04_G05 | 20.6  | 5.0      | 0.282365                          | 2.5E-05    | 0.001399                          | 0.282354                              | -14.8    | 0.9                 | -5.6     | 433      |
| 11LB04_G21 | 43.5  | 4.8      | 0.282230                          | 2.6E-05    | 0.002488                          | 0.282209                              | -19.6    | 0.9                 | -10.7    | 435      |
| 11LB04_G78 | 20.6  | 3.5      | 0.281754                          | 4.2E-05    | 0.001193                          | 0.281744                              | -36.5    | 1.5                 | -27.3    | 428      |

**01PL12 - Wood River Formation, Hailey Member, 11T 0726500E 4816500N NAD 27**

| Spot        | $(^{176}\text{Yb} + ^{176}\text{Lu}) / ^{176}\text{Hf}$ (%) | Volts Hf | $^{176}\text{Hf}/^{177}\text{Hf}$ | $\pm$ (1s) | $^{176}\text{Lu}/^{177}\text{Hf}$ | $^{176}\text{Hf}/^{177}\text{Hf}$ (T) | E-Hf (0) | E-Hf (0) $\pm$ (1s) | E-Hf (T) | Age (Ma) |
|-------------|---|----------|-----------------------------------|------------|-----------------------------------|---------------------------------------|----------|---------------------|----------|----------|
| 01PL12_G007 | 21.7  | 6.2      | 0.282267                          | 0.000035   | 0.001294                          | 0.282257                              | -18.3    | 1.2                 | -9.0     | 436      |
| 01PL12_G13  | 17.9  | 2.3      | 0.282385                          | 0.000063   | 0.001140                          | 0.282376                              | -14.1    | 2.2                 | -4.6     | 444      |
| 01PL12_G13B | 15.6  | 2.4      | 0.282390                          | 0.000069   | 0.001089                          | 0.282381                              | -14.0    | 2.5                 | -4.4     | 444      |
| 01PL12_G090 | 8.7   | 5.2      | 0.282490                          | 0.000049   | 0.000678                          | 0.282481                              | -10.4    | 1.7                 | 4.1      | 664      |
| 01PL12_G086 | 51.1  | 1.9      | 0.282413                          | 0.000094   | 0.003107                          | 0.282388                              | -13.2    | 3.3                 | -4.5     | 427      |
| 01PL12_G098 | 29.4  | 3.2      | 0.282461                          | 0.000048   | 0.001591                          | 0.282448                              | -11.4    | 1.7                 | -2.2     | 436      |
| 01PL12_G084 | 46.1  | 3.2      | 0.282341                          | 0.000044   | 0.002882                          | 0.282306                              | -15.7    | 1.6                 | -2.5     | 645      |
| 01PL12_G049 | 13.9  | 4.8      | 0.282046                          | 0.000021   | 0.001276                          | 0.282034                              | -26.1    | 0.8                 | -16.1    | 470      |
| 01PL12_G026 | 31.8  | 3.0      | 0.282825                          | 0.000033   | 0.002176                          | 0.282801                              | 1.4      | 1.2                 | 13.7     | 588      |
| 01PL12_G055 | 31.2  | 4.1      | 0.282788                          | 0.000042   | 0.001981                          | 0.282774                              | 0.1      | 1.5                 | 8.1      | 379      |
| 01PL12_G051 | 36.2  | 4.6      | 0.282580                          | 0.000025   | 0.002184                          | 0.282553                              | -7.3     | 0.9                 | 6.3      | 650      |
| 01PL12_G119 | 30.0  | 0.6      | 0.282655                          | 0.000147   | 0.002289                          | 0.282637                              | -4.6     | 5.2                 | 4.2      | 426      |
| 01PL12_G044 | 61.4  | 3.4      | 0.282753                          | 0.000035   | 0.003767                          | 0.282723                              | -1.1     | 1.3                 | 7.4      | 431      |
| 01PL12_G019 | 12.4  | 3.9      | 0.282747                          | 0.000051   | 0.000930                          | 0.282740                              | -1.4     | 1.8                 | 7.2      | 393      |
| 01PL12_G067 | 50.0  | 2.4      | 0.282759                          | 0.000063   | 0.003356                          | 0.282730                              | -0.9     | 2.2                 | 8.4      | 465      |

**04TD10 - Wood River Formation, Eagle Creek Member, 11T 0725964E 4846347N NAD 27**

| Spot      | $(^{176}\text{Yb} + ^{176}\text{Lu}) / ^{176}\text{Hf}$ (%) | Volts Hf | $^{176}\text{Hf}/^{177}\text{Hf}$ | $\pm$ (1s) | $^{176}\text{Lu}/^{177}\text{Hf}$ | $^{176}\text{Hf}/^{177}\text{Hf}$ (T) | E-Hf (0) | E-Hf (0) $\pm$ (1s) | E-Hf (T) | Age (Ma) |
|-----------|---|----------|-----------------------------------|------------|-----------------------------------|---------------------------------------|----------|---------------------|----------|----------|
| 4TD10-G36 | 6.7   | 6.4      | 0.281606                          | 0.000031   | 0.000449                          | 0.281602                              | -41.7    | 1.1                 | -32.4    | 424      |
| 4TD10-G31 | 12.0  | 5.6      | 0.282172                          | 0.000029   | 0.000729                          | 0.282166                              | -21.7    | 1.0                 | -12.2    | 434      |
| 4TD10-G22 | 2.6   | 5.1      | 0.282315                          | 0.000046   | 0.000128                          | 0.282314                              | -16.6    | 1.6                 | -7.1     | 428      |
| 4TD10-G61 | 11.5  | 5.2      | 0.282257                          | 0.000034   | 0.000736                          | 0.282251                              | -18.7    | 1.2                 | -8.9     | 448      |
| 4TD10-G75 | 3.7   | 7.0      | 0.281879                          | 0.000030   | 0.000341                          | 0.281877                              | -32.0    | 1.0                 | -23.3    | 396      |
| 4TD10-G97 | 17.0  | 4.9      | 0.282264                          | 0.000033   | 0.001048                          | 0.282255                              | -18.4    | 1.2                 | -9.4     | 421      |
| 4TD10-G79 | 1.9   | 5.8      | 0.282357                          | 0.000026   | 0.000150                          | 0.282355                              | -15.1    | 0.9                 | -5.5     | 433      |
| 4TD10-G80 | 31.5  | 4.3      | 0.282277                          | 0.000033   | 0.001848                          | 0.282262                              | -17.9    | 1.2                 | -8.9     | 431      |

**03PL12 - Wood River Formation, Wilson Creek Member, 11T 0733509E 4812885N NAD 27**

| Spot       | $(^{176}\text{Yb} + ^{176}\text{Lu}) / ^{176}\text{Hf}$ (%) | Volts Hf | $^{176}\text{Hf}/^{177}\text{Hf}$ | $\pm$ (1s) | $^{176}\text{Lu}/^{177}\text{Hf}$ | $^{176}\text{Hf}/^{177}\text{Hf}$ (T) | E-Hf (0) | E-Hf (0) $\pm$ (1s) | E-Hf (T) | Age (Ma) |
|------------|---|----------|-----------------------------------|------------|-----------------------------------|---------------------------------------|----------|---------------------|----------|----------|
| 3PL12_G22  | 29.1  | 4.2      | 0.282315                          | 0.000036   | 0.001827                          | 0.282301                              | -16.6    | 1.3                 | -7.6     | 429      |
| 3PL12_G23  | 30.0  | 5.2      | 0.282283                          | 0.000033   | 0.001959                          | 0.282268                              | -17.7    | 1.2                 | -9.1     | 413      |
| 3PL12_G32  | 13.0  | 3.2      | 0.282439                          | 0.000051   | 0.000979                          | 0.282429                              | -12.2    | 1.8                 | -0.2     | 557      |
| 3PL12_G70  | 36.9  | 4.2      | 0.282617                          | 0.000040   | 0.002090                          | 0.282598                              | -6.0     | 1.4                 | 3.9      | 472      |
| 3PL12_G65  | 29.8  | 3.1      | 0.282367                          | 0.000055   | 0.001743                          | 0.282351                              | -14.8    | 2.0                 | -4.3     | 495      |
| 3PL12_G009 | 22.8  | 2.8      | 0.282430                          | 0.000052   | 0.001458                          | 0.282417                              | -12.6    | 1.8                 | -2.7     | 465      |
| 3PL12_G040 | 31.9  | 4.7      | 0.282511                          | 0.000030   | 0.002131                          | 0.282494                              | -9.7     | 1.1                 | -1.0     | 415      |
| 3PL12_G036 | 2.9   | 5.4      | 0.282431                          | 0.000045   | 0.000161                          | 0.282430                              | -12.5    | 1.6                 | -5.4     | 321      |
| 3PL12_G079 | 27.1  | 1.8      | 0.282431                          | 0.000048   | 0.001631                          | 0.282418                              | -12.5    | 1.7                 | -3.6     | 419      |
| 3PL12_G055 | 35.5  | 4.4      | 0.282733                          | 0.000033   | 0.002093                          | 0.282721                              | -1.8     | 1.2                 | 4.6      | 308      |
| 3PL12_G050 | 23.3  | 4.2      | 0.282038                          | 0.000033   | 0.001438                          | 0.282023                              | -26.4    | 1.2                 | -13.9    | 585      |
| 3PL12_G026 | 23.6  | 4.8      | 0.282271                          | 0.000042   | 0.001472                          | 0.282257                              | -18.2    | 1.5                 | -7.5     | 501      |

Notes for tables:

- 1 Data reduction methodology is from Woodhead et al. (2004).
- 2 Analytical methods described in detail by Gehrels and Pecha (2014).
- 3  $(^{176}\text{Yb} + ^{176}\text{Lu}) / ^{176}\text{Hf}$  (%) expresses the proportion of  $^{176}\text{Yb} + ^{176}\text{Lu}$  versus the proportion due to  $^{176}\text{Hf}$ , in %.
- 4 Volts Hf is the sum of voltages of all Hf isotopes.
- 5  $^{176}\text{Hf}/^{177}\text{Hf}$  is the measured  $^{176}\text{Hf}/^{177}\text{Hf}$ , corrected for fractionation and interferences. Shown with uncertainty expressed at 1-sigma.
- 6  $^{176}\text{Lu}/^{177}\text{Hf}$  is the intensity of  $^{176}\text{Lu}$ , calculated from the measured intensity of  $^{175}\text{Lu}$  and  $^{176}\text{Lu}/^{175}\text{Lu}=0.02653$  (from Patchett, 1983), compared to the measured intensity of  $^{177}\text{Hf}$ .
- 7  $^{176}\text{Hf}/^{177}\text{Hf}$  (T) is the  $^{176}\text{Hf}/^{177}\text{Hf}$  corrected to the time of crystallization using a decay constant of  $1.867\text{e-}11$  (from Scherer et al., 2001 and Soderland et al., 2004).
- 8 E-Hf (0) is the present-day epsilon Hf value using  $^{176}\text{Hf}/^{177}\text{Hf}=0.282785$  and  $^{176}\text{Lu}/^{177}\text{Hf}=0.0336$  (from Bouvier et al., 2008). The uncertainty is expressed at 1-sigma.
- 9 E-Hf (T) is the epsilon Hf value at the time of crystallization. The uncertainty is expressed at 1-sigma.
- 10 U-Pb ages are based on 206/238 for ages younger than ~1.0 Ga, and on 206/207 for ages older than ~1.0 Ga. This age cutoff may be slightly different for each sample.
- 11 Isotope ratios as follows:

|         |           |                             |
|---------|-----------|-----------------------------|
| 180/177 | 1.88666   | Patchett (1983)             |
| 179/177 | 0.7325    | Patchett & Tatsumoto (1980) |
| 178/177 | 1.46718   | Patchett (1983)             |
| 176/177 | 0.28216   | Patchett (1983)             |
| 174/177 | 0.00871   | Patchett (1983)             |
| 176/175 | 0.02653   | Patchett (1983)             |
| 176/171 | 0.901691  | Vervoort et al. (2004)      |
| 173/171 | 1.1323569 | Vervoort et al. (2004)      |
| 172/171 | 1.531736  | Vervoort et al. (2004)      |

References

- Bouvier, A., Vervoort, J., and Patchett, J., 2008, The Lu-Hf and Sm-Nd isotopic composition of CHUR: Constraints from unequilibrated chondrites and implications for the bulk composition of terrestrial planets: *Earth and Planetary Science Letters*: v. 273, p. 48-57.
- Gehrels, G. and Pecha, M., 2014, Detrital zircon U-Pb geochronology and Hf isotope geochemistry of Paleozoic and Triassic passive margin strata of western North America: *Geosphere*, v. 10 (1), p. 49-65.
- Patchett, P.J., 1983, Importance of the Lu-Hf isotopic system in studies of planetary chronology and chemical evolution: *Geochimica et Cosmochimica Acta*, v. 47, p. 81-91.
- Scherer, E., Munker, C., and Mezger, K., 2001, Calibrating the Lu-Hf clock: *Science*, v. 293, p. 683-686.
- Söderlund, U., Patchett, P.J., Vervoort, J.D. and Isachsen, C.E., 2004, The  $^{176}\text{Lu}$  decay constant determined by Lu-Hf and U-Pb isotope systematics of Precambrian mafic intrusions: *Earth and Planetary Science Letters*, v. 219, p. 311-324.
- Vervoort, J. D., and Blichert-Toft, J., 1999, Evolution of the depleted mantle: Hf isotope evidence from juvenile rocks through time: *Geochimica et Cosmochimica Acta*, v. 63, p. 533-556.
- Vervoort, J.D., Patchett, P.J., Soderlund, U., and Baker, M., 2004, Isotopic composition of Yb and the determination of Lu concentrations and Lu/Hf ratios by isotope dilution using MC-ICPMS: *Geochemistry Geophysics Geosystems*, v. 5, Q11002. (doi:10.1029/2004GC000721)