

Appendix 3: Supporting analytical data

Table A1: U-Th-Pb isotopic data for Ospika pipe CA-ID-TIMS titanite analyses

Sample	Compositional Parameters								Sample (Radiogenic + Initial Pb) Isotope Ratios					
	Wt. mg	U ppm	$\frac{\text{Th}}{\text{U}}$	Pb ppm	$^{206}\text{Pb}^*$ $\times 10^{-13}$ mol	mol % $^{206}\text{Pb}^*$	$\frac{\text{Pb}^*}{\text{Pb}_c}$	Pb _c (pg)	$\frac{^{206}\text{Pb}}{^{204}\text{Pb}}$	$\frac{^{238}\text{U}}{^{204}\text{Pb}}$	% err	$\frac{^{206}\text{Pb}}{^{204}\text{Pb}}$	% err	corr. coef. 8/4-6/4
(a)	(b)	(c)	(d)	(c)	(e)	(e)	(e)	(e)	(f)	(j)	(h)	(j)	(h)	
MA045A														
T1	0.013	14	0.218	1.7	0.4406	75.89%	0.87	11.68	75	1691.562420	37.995661	117.426984	32.393686	0.999361
T3	0.019	10	0.303	3.2	0.4565	42.86%	0.21	50.62	32	249.178355	5.490588	33.191513	2.550196	0.992225
T4	0.010	23	0.291	3.3	0.5333	70.74%	0.69	18.38	62	1017.579946	18.657768	78.156196	14.372280	0.999709
T5	0.012	12	0.251	2.2	0.3779	62.48%	0.46	18.90	48	693.884851	17.963102	59.057694	12.513442	0.999530

(a) T1, T2 etc. are labels for fractions composed of single titanite grains or fragments of single grains.

(b) Grain masses determined on Sartorius SE2 ultramicrobalance to +/- 1 microgram.

(c) Nominal U and total Pb concentrations subject to uncertainty in mass determinations.

(d) Model Th/U ratio calculated from radiogenic $^{208}\text{Pb}/^{206}\text{Pb}$ ratio and $^{207}\text{Pb}/^{235}\text{U}$ age.

(e) Pb* and Pb_c represent radiogenic and common Pb, respectively; mol % $^{206}\text{Pb}^*$ with respect to radiogenic, blank and initial common Pb.

(f) Measured ratio corrected for spike and fractionation only. Mass discrimination of 0.23%/amu based on analysis of NBS-982; all Daly analyses.

(g) Corrected for fractionation, spike, and common Pb; 5 pg of common Pb was assumed to be procedural blank: $^{206}\text{Pb}/^{204}\text{Pb} = 18.50 \pm 1.0\%$; $^{207}\text{Pb}/^{204}\text{Pb} = 15.20 \pm 1.0\%$; $^{208}\text{Pb}/^{204}\text{Pb} = 38.40 \pm 1.0\%$ (all uncertainties 1-sigma).

(h) Errors are 2-sigma, propagated using the algorithms of Schmitz and Schoene (2007) and Crowley et al. (2007).

(i) Corrected for fractionation, spike, and blank Pb only.

Table A2: U-Pb isotopic data for zircons from the Skoki Formation volcanic agglomerate tuff (MA062 via LA-ICP-MS)

	Isotopic Ratios							Isotopic Ages					Background corrected mean counts per second									
	207/206	% 1s	207/235	% 1s	206/238	% 1s	rho	207/206	2s	207/235	2s	206/238	2s	202	204	206	207	208	232	235	238	
Sample MA-062																						
1	0.05681	0.00074	0.57409	0.00855	0.07402	0.00046	0.42	483.6	28.9	460.7	5.51	460.3	2.79	9	20221	1164	5340	174095	2111	521656	912653	
2	0.05669	0.00069	0.57488	0.00795	0.07399	0.00044	0.43	478.9	26.88	461.2	5.13	460.2	2.66	20	20699	1190	5010	167516	2155	535147	3885984	
3	0.05602	0.00048	0.58236	0.00564	0.07412	0.00037	0.52	452.6	18.46	466	3.62	460.9	2.22	3	51842	2944	23305	812383	5270	1340442	501308	
4	0.05717	0.00059	0.58125	0.00681	0.0741	0.00041	0.47	497.7	22.86	465.3	4.37	460.8	2.44	2	40037	2321	16318	580847	4166	1037467	2427562	
5	0.05466	0.00078	0.56406	0.00914	0.07402	0.00049	0.41	398.2	31.22	454.2	5.93	460.3	2.94	0	36736	2036	11099	375843	3773	956452	943733	
6	0.05598	0.0007	0.58094	0.00827	0.07517	0.00046	0.43	451.2	27.07	465.1	5.31	467.2	2.76	5	28088	1595	7327	256748	2872	721474	927981	
7	0.05522	0.00067	0.55579	0.0077	0.07409	0.00045	0.44	420.9	26.84	448.8	5.02	460.7	2.68	0	28550	1599	8056	281843	3012	745400	2710321	
8	0.05721	0.00107	0.564	0.01203	0.07409	0.00061	0.39	499	40.61	454.1	7.81	460.8	3.65	0	11243	652	2070	69067	1212	294081	1779879	
9	0.05618	0.00089	0.56433	0.01022	0.07411	0.00054	0.40	458.8	35.09	454.3	6.64	460.9	3.21	0	21519	1226	5576	191623	2280	563760	179560	
10	0.05728	0.00076	0.57391	0.00863	0.07408	0.00047	0.42	501.8	28.87	460.5	5.57	460.7	2.85	5	21246	1234	4977	174218	2258	557870	3823929	
11	0.05649	0.00066	0.56572	0.00752	0.07234	0.00043	0.45	470.9	25.94	455.2	4.88	450.2	2.58	0	24780	1420	3504	125570	2641	668826	1458974	
12	0.06095	0.00261	0.58996	0.02891	0.07391	0.00129	0.36	637.4	89.47	470.8	18.47	459.7	7.76	12	5415	334	1665	53740	597	143326	1035232	
13	0.05533	0.00168	0.60859	0.02139	0.07721	0.00094	0.35	425.3	66.08	482.7	13.5	479.5	5.64	2	6872	385	2279	74272	668	174435	1072736	
14	0.05449	0.00129	0.56189	0.01519	0.07424	0.00073	0.36	391.4	52	452.8	9.87	461.7	4.36	0	9337	516	2965	100635	969	246951	730576	
15	0.05704	0.00103	0.56095	0.01143	0.07387	0.00059	0.39	492.5	39.3	452.1	7.44	459.4	3.51	0	8843	512	2780	95311	963	235507	131258	
16	0.05525	0.00116	0.56704	0.01358	0.07367	0.00066	0.37	422.3	45.59	456.1	8.8	458.2	3.95	0	21749	1220	4241	146290	2275	582975	215538	
17	0.05606	0.00109	0.58144	0.01293	0.07424	0.00062	0.38	454.4	42.5	465.4	8.3	461.7	3.74	0	10894	620	2518	84501	1128	290303	451113	
18	0.05563	0.00145	0.53888	0.01598	0.07423	0.0008	0.36	437.3	56.9	437.7	10.54	461.6	4.83	0	16103	909	6228	218778	1788	429995	245040	
19	0.05629	0.0008	0.57275	0.00926	0.07428	0.0005	0.42	463.2	31.38	459.8	5.98	461.9	2.99	4	14985	856	5741	203499	1586	400635	590518	
20	0.0551	0.00109	0.57201	0.01288	0.07398	0.00063	0.38	416	42.79	459.3	8.32	460.1	3.77	41	11727	656	3374	115039	1217	315397	351513	

Table A3: U-Pb isotopic data for detrital zircons from the basal Kechika Formation (MA076 and MA190 via LA-ICP-MS). Preferred ages for zircons with <10% discordance are highlighted in yellow.

Analysis #	Isotopic Ratios							Isotopic Ages					Preferred Ages			Background corrected mean counts per second								
	Pb207/Pb206		Pb207/U235		Pb206/U238		Rho	Pb207/Pb206		Pb207/U235		Pb206/U238		Discordance	Preferred Age	2s	202	204	206	207	208	232	235	238
MA076(f)	0.1144	0.0013	4.17453	0.07263	0.28005	0.00196	0.40	1870.4	20.37	1669	14.25	1591.6	9.85	14.9	1870.4	20.37	0	8	109006	12312	10873	122141	3434	912653
2	0.10653	0.00124	1.82415	0.02676	0.12748	0.00088	0.47	1741	21.16	1054.2	9.62	773.5	5.06	55.6	1741	21.16	0	253	211867	22343	26904	488768	14213	3885984
3	0.19696	0.00234	13.6755	0.36141	0.50999	0.0041	0.30	2801.2	19.26	2727.5	25.01	2656.6	17.49	5.2	2801.2	19.26	0	0	109651	21433	13138	87385	1812	501308
4	0.09838	0.00123	2.71611	0.04829	0.20631	0.0015	0.41	1593.6	23.24	1332.9	13.2	1209.1	8	24.1	1593.6	23.24	0	24	215395	21083	10897	185662	8945	2427562
5	0.11105	0.00122	4.1186	0.0682	0.29671	0.00201	0.41	1807.6	20.01	1658	13.53	1675	9.99	7.3	1807.6	20.01	66	0	120765	13310	7995	80574	3711	943733
6	0.11155	0.00137	5.09523	0.1042	0.33108	0.00243	0.36	1824.8	22.11	1835.3	17.36	1843.6	11.74	-1.0	1824.8	22.11	0	0	133241	14900	5958	55283	3335	927981
7	0.15825	0.00155	6.3913	0.09071	0.32278	0.00204	0.45	2437.1	16.52	2031.1	12.46	1803.3	9.93	26.0	2437.1	16.52	85	17	380442	60508	39881	428500	10762	2710321
8	0.12753	0.00164	3.99675	0.07917	0.23187	0.00178	0.39	2064.2	22.52	1633.5	16.09	1344.3	9.33	34.9	2064.2	22.52	0	27	179963	23123	20635	325414	6554	1779879
9	0.12164	0.00258	5.30451	0.21566	0.35344	0.00429	0.30	1980.4	37.25	1869.6	34.73	1951	20.42	1.5	1980.4	37.25	14	0	27750	3409	4313	34696	725	179560
10	0.10202	0.00113	2.33528	0.03306	0.17079	0.00112	0.46	1661.2	20.39	1223.1	10.06	1016.5	6.14	38.8	1661.2	20.39	0	78	286351	29582	12685	216502	14255	3823929
11	0.11335	0.00115	4.76083	0.06599	0.32698	0.00202	0.45	1853.8	18.3	1778	11.63	1823.7	9.82	1.6	1853.8	18.3	0	34	210306	24259	24147	231798	5696	1458974
12	0.10507	0.00155	3.16712	0.07047	0.23945	0.00197	0.37	1715.6	26.93	1449.2	17.17	1383.8	10.27	19.3	1715.6	26.93	80	14	109576	11745	17845	201071	4131	1035232
MA076(c)	0.16244	0.00137	10.2662	0.11455	0.46801	0.00278		2481.3	14.1	2459.1	10.32	2474.8	12.23	0.3	2481.3	14.1	39	0	204405	33818	1990	7629	3879	1072736
MA190(f)	0.15613	0.00173	9.36984	0.16088	0.44997	0.00296	0.38	2414.1	18.67	2374.9	15.75	2395.1	13.16	0.8	2414.1	18.67	37	71	147675	23870	13078	86114	2782	730576
b	0.15821	0.00222	9.36614	0.25988	0.46646	0.00398	0.31	2436.6	23.6	2374.5	25.46	2468	17.51	-1.3	2436.6	23.6	15	7	27577	4528	3511	16390	526	131258
c	0.15694	0.00215	9.57011	0.25285	0.46488	0.00383	0.31	2422.9	23.03	2394.3	24.29	2461.1	16.84	-1.6	2422.9	23.03	1	29	45251	7388	5597	33646	837	215538
d	0.1144	0.00201	4.4431	0.13265	0.30033	0.00294	0.33	1870.4	31.39	1720.4	24.74	1692.9	14.57	9.5	1870.4	31.39	67	18	61346	7319	4861	32411	1782	451113
e	0.10702	0.00155	4.95209	0.11771	0.33465	0.00267	0.34	1749.3	26.27	1811.2	20.08	1860.9	12.9	-6.4	1749.3	26.27	38	0	37229	4165	5373	46811	906	245040
f	0.17591	0.002	11.8253	0.19338	0.49616	0.0032	0.39	2614.7	18.77	2590.7	15.31	2597.3	13.78	0.7	2614.7	18.77	0	18	133719	24709	6711	32369	2238	590518
g	0.10424	0.00137	4.47608	0.08482	0.31555	0.00224	0.37	1700.9	24.02	1726.5	15.73	1768	11	-3.9	1700.9	24.02	1	0	50756	5571	4264	37704	1329	351513
h	0.14048	0.00195	5.70417	0.12307	0.3111	0.00243	0.36	2233.2	23.82	1932	18.64	1746.1	11.93	21.8	2233.2	23.82	0	0	95240	14122	13230	98330	2635	667282
i	0.10638	0.00163	4.52967	0.10973	0.3146	0.00259	0.34	1738.3	27.74	1736.4	20.15	1763.3	12.68	-1.4	1738.3	27.74	12	0	57768	6502	17475	177206	1523	399198
j	0.15907	0.00225	7.59929	0.17852	0.36468	0.00293	0.34	2445.8	23.71	2184.8	21.08	2004.3	13.86	18.1	2445.8	23.71	48	10	139957	23611	27794	239409	3286	832180
k	0.09408	0.00132	2.80631	0.051	0.22075	0.0016	0.40	1509.7	26.2	1357.2	13.61	1285.8	8.42	14.8	1509.7	26.2	25	0	207340	20785	244	2086	7786	2026125
l	0.10311	0.00141	4.0922	0.07623	0.28659	0.00205	0.38	1680.8	25.08	1652.7	15.2	1624.5	10.26	3.3	1680.8	25.08	12	11	119935	13208	16207	159108	3382	900426
m	0.10083	0.00129	2.96009	0.04503	0.21059	0.00139	0.43	1639.4	23.63	1397.4	11.55	1232	7.4	24.9	1639.4	23.63	15	0	278721	30088	12906	181052	10619	2840380
n	0.17129	0.00228	10.7868	0.22112	0.46934	0.0034	0.35	2570.3	22.1	2504.9	19.05	2480.6	14.9	3.5	2570.3	22.1	0	0	218451	40156	40742	279770	3877	996337
o	0.1452	0.00183	7.57608	0.11773	0.39294	0.00256	0.42	2290.1	21.57	2182	13.94	2136.4	11.86	6.7	2290.1	21.57	56	0	302148	47191	14455	110592	6467	1641814
MA190(c)	0.12915	0.00336	6.64141	0.36062	0.38308	0.00578		2086.4	45.11	2064.9	47.92	2090.6	26.96	-0.2	2086.4	45.11	5	3	15493	2028	3194	17804	356	97208
b	0.1177	0.00369	6.22125	0.40517	0.41483	0.00732		1921.6	55.11	2007.4	56.97	2237	33.35	-16.4	1921.6	55.11	0	0	8534	1017	2441	12597	190	49183
c	0.14087	0.00178	6.88133	0.1327	0.36963	0.00272		2238	21.67	2096.3	17.1	2027.6	12.8	9.4	2238	21.67	19	29	207274	29527	4177	33567	4990	1333455

Table A4: 40Ar/39Ar step heating analytical results for MA045A Run 1

Laser	Isotope Ratios												
	(sample/mineral)												
Power(%)	40Ar/39Ar	1σ	37Ar/39Ar	1σ	36Ar/39Ar	1σ	Ca/K	Cl/K	%40Ar atm	f 39Ar	40Ar*/39ArK	Age	2σ
2.00 W	77.83	1.17	0.17	0.08	0.261	0.012	0.31		98.97	0.05	0.801	15.85	± 133.44
2.30 W	22.50	0.17	1.08	0.03	0.040	0.001	1.99		52.28	0.39	10.746	201.98	± 13.51
2.70 W	17.50	0.09	0.20	0.00	0.007	0.000	0.38		11.19	3.45	15.546	285.39	± 3.14
2.90 W	18.92	0.10	0.03	0.00	0.002	0.000	0.05		3.40	9.49	18.272	331.09	± 3.14
3.10 W	18.26	0.09	0.01	0.00	0.001	0.000	0.02		2.40	10.02	17.826	323.70	± 3.03
3.20 W	18.76	0.10	0.01	0.00	0.000	0.000	0.01		0.89	9.07	18.596	336.46	± 3.19
3.30 W	18.76	0.10	0.01	0.00	0.000	0.000	0.02		0.66	6.05	18.632	337.05	± 3.26
3.40 W	18.84	0.10	0.01	0.00	0.000	0.000	0.02		0.91	6.17	18.670	337.68	± 3.33
3.50 W	19.19	0.10	0.01	0.00	0.000	0.000	0.01		0.73	6.12	19.051	343.96	± 3.46
3.60 W	19.34	0.10	0.01	0.00	0.001	0.000	0.01		1.08	6.84	19.135	345.33	± 3.26
3.70 W	19.33	0.10	0.00	0.00	0.000	0.000	0.01		0.67	12.86	19.200	346.40	± 3.24
3.80 W	19.69	0.10	0.00	0.00	0.000	0.000	0.00		0.77	7.71	19.535	351.90	± 3.38
3.90 W	20.01	0.10	0.00	0.00	0.001	0.000	0.01		1.07	10.24	19.792	356.09	± 3.32
4.00 W	19.98	0.11	0.01	0.00	0.001	0.000	0.01		1.05	3.47	19.767	355.69	± 3.70
4.20 W	20.14	0.11	0.00	0.00	0.001	0.000	0.00		0.99	3.12	19.946	358.60	± 3.65
4.60 W	20.12	0.11	0.00	0.00	0.000	0.000	0.00		0.63	4.80	19.993	359.37	± 3.44
5.10 W	19.57	0.31	0.02	0.03	0.016	0.001	0.04		24.39	0.15	14.797	272.62	± 11.26
Power(%)	40Ar/39Ar	1σ	37Ar/39Ar	1σ	36Ar/39Ar	1σ	Ca/K	Cl/K	%40Ar atm	f 39Ar	40Ar*/39ArK	1σ	
Total/Average	19.242	0.026	0.006	0.000	0.0006	0.0000				100.00	18.682	0.027	
J = 0.0109966 ± 0.0000550			Volume 39ArK =	1.766	Integrated Date =	340.33	± 3.24	Ma					
Plateau Age = no plateau													
Inverse isochron (correlation age) results, plateau steps: Model 1 Solution (±95%-conf.) on 1 6 points Age = not resolved													

Table A5: 40Ar/39Ar step heating analytical results for MA045A Run 2

Laser	Isotope Ratios												
	MA45a biotite Run 2 (sample/mineral)												
Power(%)	40Ar/39Ar	1σ	37Ar/39Ar	1σ	36Ar/39Ar	1σ	Ca/K	Cl/K	%40Ar atm	f 39Ar	40Ar*/39ArK	Age	2σ
2.00 W	81.35	1.61	0.88	0.17	0.261	0.009	1.62		94.79	0.06	4.240	82.40	± 80.94
2.30 W	24.55	0.18	2.53	0.12	0.054	0.003	4.65		64.81	0.26	8.657	164.44	± 28.44
2.80 W	17.35	0.15	2.98	0.06	0.005	0.000	5.47		7.85	6.64	16.020	293.42	± 5.10
3.00 W	17.40	0.10	2.26	0.05	0.004	0.000	4.15		5.61	6.89	16.453	300.73	± 3.24
3.10 W	17.02	0.09	2.26	0.05	0.003	0.003	4.14		4.81	2.70	16.226	296.91	± 34.43
3.20 W	16.57	0.13	0.19	0.01	0.001	0.000	0.36		1.91	4.29	16.256	297.40	± 4.26
3.30 W	16.89	0.12	0.03	0.00	0.001	0.000	0.05		1.81	5.78	16.580	302.87	± 4.14
3.40 W	16.79	0.09	0.03	0.00	0.001	0.000	0.05		1.15	6.77	16.592	303.07	± 2.92
3.50 W	16.87	0.18	0.03	0.00	0.001	0.000	0.05		1.14	6.93	16.675	304.45	± 6.01
3.60 W	16.91	0.10	0.02	0.00	0.001	0.000	0.03		1.30	7.56	16.688	304.68	± 3.45
3.70 W	17.10	0.18	0.01	0.00	0.001	0.000	0.02		1.11	10.84	16.909	308.38	± 6.12
3.80 W	17.27	0.15	0.01	0.00	0.000	0.000	0.01		0.82	7.50	17.128	312.06	± 5.00
3.90 W	17.22	0.22	0.01	0.00	0.000	0.000	0.02		0.84	6.41	17.079	311.23	± 7.42
4.00 W	17.70	0.09	0.01	0.00	0.000	0.000	0.01		0.90	5.64	17.539	318.93	± 3.01
4.20 W	17.86	0.12	0.01	0.01	0.001	0.000	0.02		1.89	5.28	17.523	318.65	± 4.35
4.40 W	19.02	0.10	0.01	0.00	0.000	0.000	0.01		0.90	9.06	18.848	340.60	± 3.35
4.70 W	18.87	0.10	0.01	0.00	0.000	0.000	0.01		0.67	5.76	18.746	338.93	± 3.31
5.20 W	16.40	0.10	0.01	0.01	0.001	0.000	0.01		2.75	1.39	15.946	292.17	± 3.43
6.00 W	14.68	0.11	0.01	0.07	0.005	0.001	0.02		9.76	0.23	13.248	245.94	± 11.31
Power(%)	40Ar/39Ar	1σ	37Ar/39Ar	1σ	36Ar/39Ar	1σ	Ca/K	Cl/K	%40Ar atm	f 39Ar	40Ar*/39ArK	1σ	
Total/Average	17.389	0.027	0.014	0.001	0.0006	0.0000				100.00	17.026	0.030	
J = 0.0109967 ± 0.0000550		Volume 39ArK =		2.257	Integrated Date =		310.6	± 1.00	Ma				
No plateau													
Inverse isochron (correlation age) results, plateau steps: Model 1 Solution (±95%-conf.) on 19 points							No Model 1 solution						

Table A6: ⁴⁰Ar/³⁹Ar step heating analytical results for MA045D Run 1

<i>MA045d biotite Run 1</i>													
<i>(sample/mineral)</i>													
<i>Power(%)</i>	<i>40Ar/39Ar</i>	<i>1σ</i>	<i>37Ar/39Ar</i>	<i>1σ</i>	<i>36Ar/39Ar</i>	<i>1σ</i>	<i>Ca/K</i>	<i>Cl/K</i>	<i>%40Ar atm</i>	<i>f 39Ar</i>	<i>40Ar*/39ArK</i>	<i>Age</i>	<i>2s</i>
2.00 W	42.52	0.73	0.22	0.06	0.136	0.008	0.40		94.40	0.09	2.384	46.79	± 84.24
2.30 W	11.32	0.06	0.51	0.01	0.010	0.000	0.93		25.00	1.47	8.494	161.48	± 4.83
2.60 W	14.90	0.08	0.05	0.00	0.004	0.000	0.09		7.52	5.00	13.783	255.20	± 2.78
2.80 W	17.67	0.10	0.01	0.00	0.001	0.000	0.02		2.48	4.63	17.233	313.81	± 3.43
3.00 W	18.14	0.09	0.01	0.00	0.001	0.000	0.01		2.06	8.95	17.764	322.66	± 3.09
3.20 W	18.20	0.25	0.00	0.00	0.001	0.000	0.01		1.65	14.10	17.896	324.86	± 8.28
3.30 W	18.35	0.11	0.00	0.00	0.001	0.000	0.01		1.33	16.13	18.110	328.41	± 3.59
3.40 W	18.47	0.09	0.00	0.00	0.000	0.000	0.00		0.81	10.06	18.320	331.89	± 3.09
3.50 W	19.06	0.12	0.00	0.00	0.000	0.000	0.00		0.90	13.70	18.893	341.35	± 3.79
3.70 W	19.53	0.10	0.00	0.00	0.001	0.000	0.01		1.04	6.19	19.326	348.46	± 3.36
3.80 W	19.65	0.10	0.00	0.00	0.000	0.000	0.00		0.76	7.20	19.502	351.35	± 3.33
3.90 W	19.71	0.12	0.00	0.00	0.000	0.000	0.00		0.67	4.89	19.577	352.58	± 3.83
4.00 W	19.77	0.11	0.00	0.00	0.000	0.000	0.00		0.76	4.16	19.620	353.28	± 3.63
4.20 W	19.85	0.13	0.00	0.00	0.001	0.000	0.01		1.27	1.54	19.603	353.00	± 5.08
4.50 W	19.54	0.11	0.00	0.00	0.001	0.000	0.01		1.32	1.59	19.285	347.80	± 4.48
5.50 W	17.92	0.10	0.01	0.02	0.000	0.002	0.02		0.82	0.32	17.770	322.77	± 15.70
<i>Power(%)</i>	<i>40Ar/39Ar</i>	<i>1σ</i>	<i>37Ar/39Ar</i>	<i>1σ</i>	<i>36Ar/39Ar</i>	<i>1σ</i>	<i>Ca/K</i>	<i>Cl/K</i>	<i>%40Ar atm</i>	<i>f 39Ar</i>	<i>40Ar*/39ArK</i>	<i>I_s</i>	
Total/Average	17.268	0.026	0.003	0.000	0.0008	0.0000				100.00	17.542	0.029	
J = 0.0109967 ± 0.0000550			Volume 39ArK =	1.849	Integrated Date =	328.49	± 3.38	Ma					
Plateau Age = no plateau													
Inverse isochron (correlation age) results, plateau steps: Model 1 Solution (±95%-conf.) on 16 points Age = not resolved													

Table A7: $^{40}\text{Ar}/^{39}\text{Ar}$ step heating analytical results for MA045D Run 2

Laser		Isotope Ratios											
		MA045d biotite Run 2										(sample/mineral)	
Power(%)	$^{40}\text{Ar}/^{39}\text{Ar}$	1s	$^{37}\text{Ar}/^{39}\text{Ar}$	1s	$^{36}\text{Ar}/^{39}\text{Ar}$	1s	Ca/K	Cl/K	% ^{40}Ar atm	f ^{39}Ar	$^{40}\text{Ar}^*/^{39}\text{ArK}$	Age	2s
2.00 W	129.00	3.36	1.07	0.39	0.406	0.020	1.95		93.03	0.02	8.995	170.60	± 178.27
2.30 W	33.18	0.28	0.68	0.17	0.085	0.002	1.24		76.00	0.15	7.967	151.90	± 22.55
2.80 W	12.88	0.07	2.00	0.04	0.010	0.000	3.66		21.17	2.25	10.170	191.75	± 3.00
3.10 W	15.12	0.08	0.11	0.01	0.006	0.000	0.21		11.60	4.06	13.368	248.06	± 2.85
3.20 W	15.58	0.08	0.09	0.00	0.002	0.000	0.17		3.97	2.88	14.960	275.46	± 2.90
3.30 W	15.55	0.08	0.12	0.01	0.002	0.000	0.22		4.03	2.17	14.928	274.91	± 2.81
3.50 W	16.93	0.09	0.06	0.00	0.002	0.000	0.11		3.17	4.84	16.397	299.84	± 2.92
3.70 W	17.99	0.09	0.01	0.00	0.001	0.000	0.03		1.78	9.22	17.668	321.14	± 3.06
3.80 W	18.00	0.09	0.02	0.00	0.001	0.000	0.03		1.19	7.95	17.782	323.04	± 3.03
3.90 W	18.21	0.09	0.02	0.00	0.001	0.000	0.03		1.12	4.12	18.002	326.68	± 3.12
4.00 W	18.93	0.10	0.01	0.00	0.000	0.000	0.02		0.85	7.79	18.774	339.46	± 3.18
4.20 W	18.48	0.09	0.03	0.00	0.001	0.000	0.06		0.96	4.51	18.301	331.64	± 3.07
4.40 W	18.51	0.10	0.07	0.00	0.000	0.000	0.13		0.87	4.80	18.348	332.43	± 3.18
4.60 W	18.44	0.09	0.07	0.01	0.001	0.000	0.13		0.95	6.00	18.263	331.01	± 3.06
4.80 W	18.20	0.10	0.03	0.00	0.000	0.000	0.06		0.94	5.07	18.026	327.09	± 3.28
5.00 W	18.27	0.09	0.03	0.00	0.000	0.000	0.05		0.85	7.74	18.116	328.57	± 3.08
5.20 W	18.88	0.10	0.05	0.00	0.000	0.000	0.08		0.76	8.21	18.740	338.89	± 3.16
5.40 W	19.19	0.10	0.06	0.00	0.000	0.000	0.10		0.78	5.64	19.046	343.94	± 3.29
5.60 W	19.30	0.10	0.06	0.00	0.000	0.000	0.10		0.65	3.65	19.178	346.10	± 3.41
5.80 W	19.49	0.10	0.03	0.00	0.000	0.000	0.05		0.69	2.59	19.355	349.01	± 3.44
6.10 W	19.53	0.10	0.01	0.00	0.000	0.000	0.03		0.67	3.28	19.396	349.67	± 3.28
6.40 W	19.76	0.11	0.01	0.01	0.001	0.000	0.02		0.96	1.71	19.575	352.61	± 3.52
6.80 W	19.28	0.11	0.03	0.01	0.001	0.000	0.05		1.22	1.34	19.049	343.98	± 3.82
Power(%)	$^{40}\text{Ar}/^{39}\text{Ar}$	1s	$^{37}\text{Ar}/^{39}\text{Ar}$	1s	$^{36}\text{Ar}/^{39}\text{Ar}$	1s	Ca/K	Cl/K	% ^{40}Ar atm	f ^{39}Ar	$^{40}\text{Ar}^*/^{39}\text{ArK}$	1s	
Total/Average	17.562	0.020	0.033	0.001	0.0005	0.0000				96.95	17.157	0.020	
J = 0.0109990 ± 0.0000550			Volume $^{39}\text{ArK} =$	3.147	Integrated Date =	314.01	± 0.68	Ma					
No Plateau													
Inverse isochron (correlation age) results, plateau steps: Model 1 Solution (±95%-conf.) on 23 points													
No solution													