

Table DR1. U-Pb GEOCHRONOLOGIC DATA AND APPARENT AGES

Spot ^a	U (ppm)	Th (ppm)	Th/U	$^{206}\text{Pb}^{*b}$ (ppm)	f $^{206}\text{Pb}_c^b$	$^{238}\text{U}/^{206}\text{Pb}^c$	$^{207}\text{Pb}/^{206}\text{Pb}^c$	$^{206}\text{Pb}/^{238}\text{U}^d$ (Ma)
<u>Sample 99MG Feldspar megacrystic orthogneiss, Little Goose Creek complex (45.19733°N, 116.14221°W)</u>								
1.1r	360	6	0.02	5	0.02	62.488 (1.6)	0.04822 (6.2)	102.3 (1.7) [#]
1.2t	80	9	0.11	1	9.1	62.195 (3.5)	0.11988 (19.1)	93.6 (4.4) ^{##}
2.1r	320	10	0.03	5	0.9	58.044 (2.0)	0.05536 (7.2)	109.1 (2.2) [#]
2.2c	2440	457	0.19	40	0.03	52.263 (0.7)	0.04867 (2.7)	122.1 (0.9)
3.1r	180	7	0.04	3	<0.01	61.570 (2.2)	0.04673 (9.1)	104.0 (2.4) [#]
3.2c	380	177	0.49	6	0.1	55.726 (1.6)	0.04938 (7.2)	114.5 (1.9)
4.1r	250	7	0.03	3	<0.01	62.619 (1.8)	0.04388 (6.9)	102.7 (1.9) [#]
5.1r	260	8	0.03	4	0.8	59.186 (2.1)	0.05450 (7.8)	107.2 (2.3) [#]
5.2r	270	8	0.03	4	3.1	58.218 (2.3)	0.07260 (7.4)	106.4 (2.6) [#]
6.1r	280	9	0.03	4	0.3	58.363 (1.8)	0.05020 (7.0)	109.2 (2.0) [#]
6.2c	490	269	0.57	11	0.2	39.336 (1.3)	0.05126 (5.0)	161.4 (2.2)
7.1r	190	13	0.07	3	<0.01	57.155 (2.2)	0.04715 (8.9)	112.0 (2.5)
7.2c	250	58	0.23	6	<0.01	38.711 (1.7)	0.04479 (6.7)	165.3 (2.9)
9.1t	140	13	0.09	2	3.2	68.065 (3.3)	0.07288 (26.6)	91.1 (3.7) ^{##}
10.1r	230	8	0.03	8	38.0	26.463 (1.3)	0.35152 (2.2)	149.3 (3.3)
11.1r	190	6	0.03	3	0.9	60.078 (2.4)	0.05508 (12.3)	105.5 (2.7) [#]
12.1t	200	22	0.11	3	0.1	69.879 (2.2)	0.04838 (12.2)	91.5 (2.1) ^{##}
12.2t	160	17	0.11	2	0.8	67.922 (3.0)	0.05405 (11.2)	93.5 (2.9) ^{##}
12.3c	1020	300	0.30	28	<0.01	30.874 (0.9)	0.04783 (3.5)	206.1 (1.9)
13.1t	300	23	0.08	4	<0.01	69.746 (2.0)	0.04387 (8.3)	92.2 (1.9) ^{##}
13.2c	180	45	0.27	2	1.0	60.780 (2.9)	0.05580 (10.5)	104.2 (3.1) [#]
14.1c	200	14	0.07	3	0.5	61.329 (2.5)	0.05197 (9.2)	103.8 (2.6) [#]
14.2r	150	23	0.16	2	<0.01	61.839 (3.0)	0.04515 (11.0)	103.8 (3.2) [#]
<u>Sample 01-52 Leucocratic granitic pegmatite, Little Goose Creek complex (45.19014°N, 116.14546°W)</u>								
1.1r	690	224	0.34	8	<0.01	71.053 (1.1)	0.04720 (3.3)	90.2 (1.0) [#]
2.1r	350	137	0.41	3	<0.01	87.116 (1.4)	0.04749 (5.7)	73.6 (1.1)
3.1c	410	25	0.06	5	2.0	70.844 (1.7)	0.06363 (8.4)	88.6 (1.6) [#]
4.1c	160	69	0.45	3	0.4	71.031 (2.3)	0.05100 (6.4)	89.8 (2.1) [#]
5.1c	370	10	0.03	5	1.4	61.157 (1.3)	0.05921 (6.6)	103.1 (1.4)
6.1r	340	71	0.22	4	1.2	70.504 (1.4)	0.05743 (4.0)	89.7 (1.3) [#]
7.1r	200	62	0.32	2	3.9	83.913 (1.8)	0.07866 (7.8)	73.4 (1.4)
8.1r	190	46	0.26	3	28.1	49.338 (1.9)	0.27055 (8.0)	93.3 (4.0) [#]
9.1r	110	5	0.05	2	29.1	48.823 (2.3)	0.27913 (4.4)	92.9 (3.0) [#]
<u>Sample 01-53 Payette River tonalite (45.15935°N, 116.10782°W)</u>								
1.1r	640	224	0.36	8	0.9	73.154 (1.5)	0.05520 (5.4)	86.7 (1.4)
2.1r	580	203	0.36	7	0.01	68.971 (1.6)	0.04796 (6.0)	92.8 (1.5) [#]
2.2c	490	180	0.38	6	0.3	66.601 (1.7)	0.04994 (6.2)	95.8 (1.7)
3.1r	470	182	0.40	6	0.5	71.827 (1.9)	0.05212 (7.0)	88.6 (1.8) [#]
4.1r	590	225	0.39	7	<0.01	70.228 (1.6)	0.04439 (6.0)	91.5 (1.5) [#]
5.1r	550	213	0.40	7	0.4	68.118 (1.6)	0.05126 (5.9)	93.6 (1.6) [#]
6.1r	620	205	0.34	8	<0.01	69.564 (1.6)	0.04287 (6.1)	92.6 (1.5) [#]

7.1r	540	194	0.38	7	<0.01	69.707 (1.6)	0.04716 (6.1)	91.9 (1.5) [#]
7.2c	700	441	0.65	9	<0.01	66.1055 (1.6)	0.04675 (6.0)	96.9 (1.6)
8.1r	570	200	0.36	7	<0.01	70.629 (1.6)	0.04688 (6.2)	90.7 (1.5) [#]
9.1r	510	184	0.37	6	0.7	70.619 (1.8)	0.05312 (6.4)	90.0 (1.6) [#]
10.1r	480	142	0.31	6	<0.01	69.600 (1.8)	0.04732 (6.7)	92.0 (1.7) [#]
11.1r	560	202	0.37	7	0.7	69.875 (1.8)	0.05302 (6.4)	91.0 (1.7) [#]
12.1r	560	185	0.34	7	0.4	69.936 (1.7)	0.05132 (6.0)	91.1 (1.6) [#]

Sample 01-54 Payette River tonalite (44.40475°N, 116.06750°W)

1.1r	360	122	0.35	4	0.5	70.535 (1.4)	0.05163 (4.0)	90.3 (1.3) [#]
2.1c	420	261	0.64	5	0.03	71.618 (1.4)	0.04802 (3.8)	89.4 (1.3) [#]
3.1c	590	357	0.63	7	<0.01	71.376 (1.3)	0.04724 (3.2)	89.8 (1.2) [#]
4.1c	160	55	0.35	2	<0.01	71.292 (1.9)	0.03988 (6.8)	90.7 (1.7) [#]
5.1r	380	134	0.36	5	<0.01	71.781 (1.4)	0.04685 (4.0)	89.3 (1.3) [#]
6.1c	150	76	0.53	2	0.6	67.422 (1.8)	0.05284 (5.6)	94.3 (1.7) [#]
7.1c	350	180	0.53	4	<0.01	71.333 (1.4)	0.04718 (4.1)	89.8 (1.3) [#]
8.1r	350	119	0.35	4	0.1	72.632 (1.5)	0.04866 (4.1)	88.1 (1.3) [#]
9.1c	280	192	0.70	3	0.2	72.541 (1.6)	0.04921 (4.7)	88.1 (1.4) [#]
10.1r	370	131	0.36	5	0.2	71.254 (1.4)	0.04935 (3.8)	89.7 (1.3) [#]

Sample 01-55 Mylonitic granodiorite, gneiss Little Goose Creek complex (44.42357°N, 116.14177°N)

1.1c	340	203	0.62	5	0.2	62.694 (1.4)	0.04965 (3.9)	101.8 (1.5)
2.1c	610	411	0.69	7	0.3	70.674 (1.3)	0.05021 (3.3)	90.3 (1.2) [#]
3.1c	100	43	0.45	1	0.4	66.233 (2.2)	0.05088 (8.0)	96.2 (2.2)
4.1c	90	39	0.44	1	0.7	65.062 (2.2)	0.05376 (7.1)	97.6 (2.1)
5.1c	1230	66	0.06	15	0.1	70.689 (1.2)	0.04898 (2.2)	90.4 (1.1) [#]
6.1c	890	55	0.06	11	0.2	69.282 (1.2)	0.04913 (2.6)	92.2 (1.1) [#]
7.1c	110	43	0.43	1	1.4	69.856 (2.3)	0.05897 (7.5)	90.3 (2.1) [#]
8.1c	360	140	0.40	5	0.3	63.182 (1.4)	0.05005 (3.7)	101.0 (1.4)
9.1c	1380	188	0.14	18	0.1	65.379 (1.1)	0.04907 (2.0)	97.7 (1.1)
10.1c	300	21	0.07	4	0.2	71.778 (1.7)	0.04964 (5.2)	89.0 (1.5) [#]
11.1c	1380	254	0.19	17	0.1	67.869 (1.2)	0.04853 (2.1)	94.2 (1.1)

Sample I0131 Feldspar megacrystic orthogneiss, Little Goose Creek complex (44.44825°N, 116.12500°W)

1.1r	140	117	0.84	1.7	<0.01	71.606 (1.9)	0.04552 (6.7)	89.7 (1.7) [#]
2.1c	290	104	0.37	3.3	<0.01	77.543 (1.6)	0.04426 (5.3)	83.0 (1.4)
3.1c	160	64	0.42	1.8	0.2	73.433 (1.9)	0.04970 (6.5)	87.0 (1.7) [#]
4.1r	270	97	0.37	3.2	0.1	72.229 (1.6)	0.04873 (4.9)	88.5 (1.4) [#]
5.1c	70	27	0.40	1.0	1.3	63.949 (2.4)	0.05846 (7.9)	98.7 (2.4)
6.1r	180	73	0.43	2.0	0.4	74.705 (1.9)	0.05072 (6.4)	85.4 (1.7) [#]
7.1r	500	107	0.22	5.7	0.1	74.587 (1.4)	0.04833 (5.5)	85.8 (1.2) [#]
8.1r	490	84	0.18	5.8	0.5	72.256 (1.4)	0.05156 (3.6)	88.2 (1.2) [#]
9.1r	450	80	0.18	5.4	0.2	71.817 (1.4)	0.04930 (3.8)	89.0 (1.3) [#]
10.1c	460	54	0.12	5.9	0.1	66.494 (1.4)	0.04835 (3.6)	96.2 (1.3)

Note: All analyses were performed on the SHRIMP-RG ion microprobe at the Stanford - United States Geological

Survey Microanalytical Center at Stanford University. The analytical routine followed Williams (1998) and data

reduction utilized the SQUID program of Ludwig (2001a).

^a Abbreviations: 1.1 = grain number-spot number; c = core; r = rim; t = tip.

^b Pb* denotes radiogenic Pb; Pb_c denotes common Pb; f²⁰⁶Pb_c = 100*(²⁰⁶Pb_c/²⁰⁶Pb_{total}).

^c Calibration concentrations and isotopic compositions were based on replicate analyses of CZ3 (550 ppm U) and R33 (419 Ma, Black et al., 2004). Reported ratios are not corrected for common Pb. Errors are reported in parentheses as percent at the 1 σ level.

^d Ages were calculated from ²⁰⁶Pb/²³⁸U ratios corrected for common Pb using the ²⁰⁷Pb method (see Williams, 1998) and initial common Pb isotopic composition approximated from Stacey and Kramers (1975). Uncertainties in millions of years reported as 1 σ . Ages annotated with # and ## were used in calculation of weighted mean ²⁰⁶Pb/²³⁸U ages discussed in text.

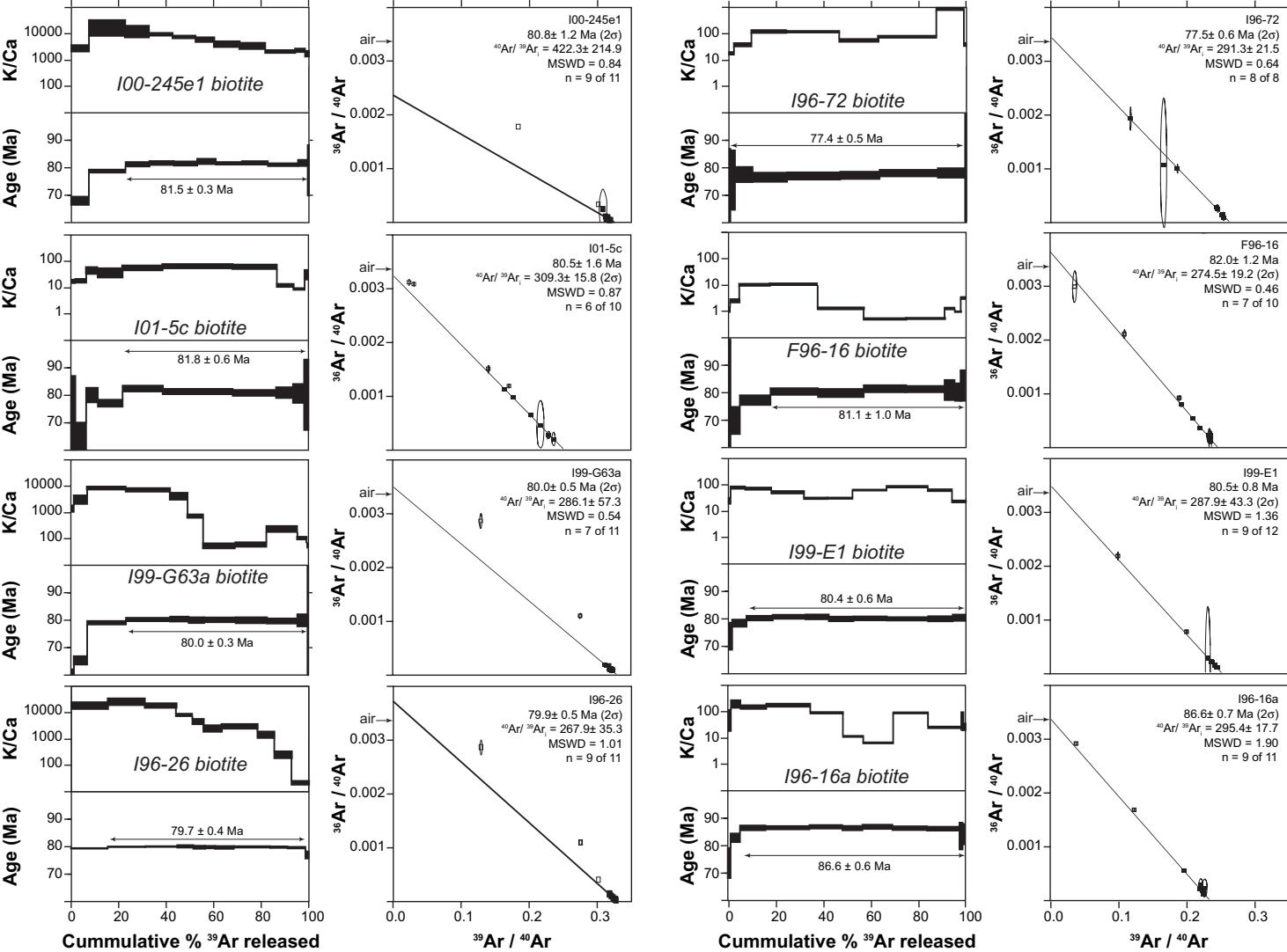


Figure DR1. ${}^{40}\text{Ar} / {}^{39}\text{Ar}$ dates collected from biotite samples. Open squares on the inverse isochron plot indicate incremental heating steps that were not included in the final analysis. Note the scale for the K/Ca ratio varies from sample to sample. All plots were created with the ArArCalc software of Koppers (2002).

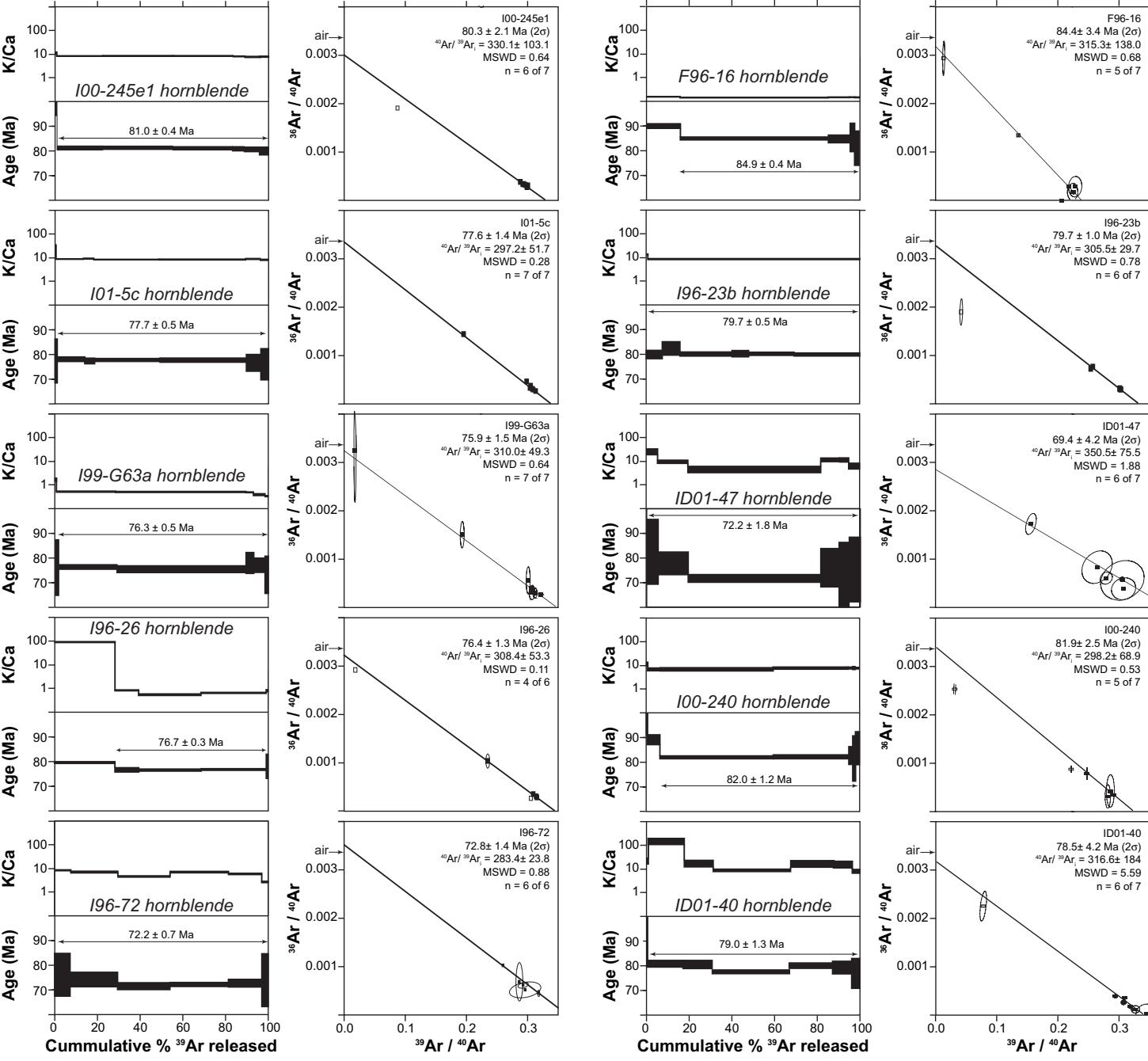


Figure DR2. $^{40}\text{Ar} / ^{39}\text{Ar}$ dates collected from hornblende samples. Open squares on the inverse isochron plot indicate incremental heating steps that were not included in the final analysis. Note the scale for the K/Ca ratio varies from sample to sample. All plots were created with the ArArCalc software of Koppers (2002).