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New Mexico Bureau of Geology and Mineral Resources
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Data Repository for $^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution

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$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E83400: Cape Evans, 25.0 mg anorthoclase (? % glass)					**J=0.000179±0.0000008**			**Disc.=1.00630±0.0007**				
54-01A		800	3.96e+00	4.51e-01	1.24e-02	4.1e-14	1.1	-2.6e-05	7.9	3.59	101	± 67
54-01B		900	2.58e+00	4.47e-01	8.26e-03	2.6e-13	1.1	4.0e-05	5.9	26.07	49	± 16
54-01C		1050	3.92e+00	4.71e-01	1.27e-02	5.4e-13	1.1	-1.3e-05	4.1	72.64	52	± 13
54-01D		1150	7.25e+00	5.28e-01	2.38e-02	1.2e-13	1.0	1.8e-04	3.1	83.32	73	± 42
54-01E	†	1250	3.29e+00	5.97e-01	9.86e-03	1.1e-13	0.9	9.6e-04	12.1	92.78	129	± 36
54-01F	†	1350	7.01e+00	8.96e-01	2.24e-02	5.4e-14	0.6	3.1e-03	6.1	97.49	139	± 67
54-01G	†	1450	9.42e+00	2.59e+00	3.31e-02	1.1e-14	0.2	1.7e-02	-1.9	98.44	-57	± 231
54-01H	†	1550	6.60e+00	5.01e-01	2.03e-02	1.8e-14	1.0	6.2e-04	9.3	100.00	197	± 134
total gas age				n=8		1.2e-12					70	± 60*
plateau age		MSWD=0.3		n=4		steps A-D				83.32	53	± 22*
isochron age		MSWD=1.2		n=8		$^{40}Ar/^{36}Ar$ = 302.0 ± 7.5					36	± 24*
				n=4		**Weighted mean**					95	± 10*
E83400, Cape Evans: Anorthoclase, J=0.000235±0.0000003					**Disc.=1.00810±0.0015**							
427-01	†		2.02	4.35e-01	6.57e-03	5.0e-15	1.2	6.5e-04	4.7	- -	40	± 13
427-02	†		1.90	4.27e-01	6.20e-03	3.8e-15	1.2	6.5e-04	4.2	- -	34	± 11
427-03A	†		2.95	4.27e-01	9.85e-03	1.1e-15	1.2	2.2e-04	1.8	- -	22	± 29
427-03B	†		1.22	4.30e-01	3.95e-03	4.7e-15	1.2	6.6e-04	5.5	- -	29	± 10
427-04A	†		2.49	4.07e-01	8.01e-03	1.4e-15	1.3	6.1e-04	5.4	- -	57	± 33
427-04B	†		0.91	4.04e-01	2.75e-03	3.5e-15	1.3	8.5e-04	11.6	- -	45	± 10
				n=3		**Weighted mean**					263	± 32*
E83433: Cape Barne, 141.4 mg anorthoclase (<1% glass)					**J=0.0000787±0.0000002**			**Disc.=1.01070±0.00150**				
836-01A		600	1.29e+01	5.42e-01	4.22e-02	3.5e-17	0.9	3.5e-04	3.1	7.90	57	± 13
836-01B		700	7.00e+00	5.32e-01	2.19e-02	6.6e-17	1.0	1.8e-04	7.9	22.94	78	± 6
836-01C		750	1.95e+00	5.31e-01	4.67e-03	4.0e-17	1.0	1.5e-04	30.0	32.07	83	± 3
836-01D		800	1.58e+00	5.30e-01	3.28e-03	4.1e-17	1.0	7.9e-05	39.7	41.34	89	± 3
836-01E		900	1.73e+00	5.29e-01	3.65e-03	5.9e-17	1.0	6.4e-05	38.9	54.69	96	± 2
836-01F		975	1.30e+00	5.26e-01	2.32e-03	5.2e-17	1.0	7.7e-05	48.8	66.45	90	± 3
836-01G		1025	1.16e+00	5.22e-01	1.85e-03	4.9e-17	1.0	7.1e-05	54.3	77.56	89	± 2
836-01H		1075	1.35e+00	5.23e-01	2.50e-03	3.7e-17	1.0	1.2e-04	46.7	86.05	90	± 4
836-01I	†	1200	5.60e+00	5.19e-01	1.39e-02	1.8e-17	1.0	1.7e-03	26.7	90.13	212	± 9
836-01K	†	1600	2.39e+00	5.23e-01	5.78e-03	2.2e-17	1.0	6.0e-04	29.4	95.09	100	± 6
836-01L	†	1600	1.72e+02	5.22e-01	5.84e-01	2.2e-17	1.0	4.4e-03	-0.1	100.00	-24	± 140
total gas age				n=11		4.4E-16					85	± 22*
plateau age		MSWD=2.8**		n=8		steps A-H				86.05	89	± 4*
isochron age		MSWD=29.2**		n=11		$^{40}Ar/^{36}Ar$ = 299.6 ± 1.6					90	± 2*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1σ)
E83433: Cape Barne, 222.1 mg anorthoclase (~5% glass)					**J=0.00008±0.0000002**		**Disc.=1.01070±0.00150**					
838-01A		700	2.05e+01	4.04e-01	6.76e-02	9.4e-17	1.3	2.1e-02	2.6	11.28	77	± 17
838-01B		750	1.47e+01	4.32e-01	4.74e-02	5.9e-17	1.2	2.3e-02	4.8	18.36	102	± 12
838-01C		800	9.82e+00	4.48e-01	3.09e-02	5.6e-17	1.1	2.1e-02	7.3	25.06	103	± 9
838-01D		850	8.25e+00	4.67e-01	2.57e-02	6.3e-17	1.1	1.7e-02	8.0	32.62	95	± 7
838-01E		900	2.03e+02	4.49e-01	6.85e-01	3.5e-17	1.1	1.9e-02	0.0	36.84	13	± 163
838-01F		950	9.85e+00	4.52e-01	3.18e-02	5.0e-17	1.1	1.3e-02	4.9	42.82	69	± 9
838-01G		1000	1.01e+01	4.57e-01	3.27e-02	6.1e-17	1.1	1.1e-02	4.8	50.17	71	± 10
838-01H		1050	1.38e+01	4.56e-01	4.46e-02	7.2e-17	1.1	1.1e-02	4.5	58.81	90	± 11
838-01I		1100	2.62e+01	4.79e-01	8.65e-02	7.3e-17	1.1	1.4e-02	2.6	67.58	99	± 21
838-01J		1150	1.90e+01	5.10e-01	6.15e-02	5.4e-17	1.0	1.1e-02	4.3	74.12	117	± 16
838-01K	†	1200	1.47e+01	5.48e-01	4.60e-02	4.2e-17	0.9	7.5e-03	7.5	79.18	159	± 13
838-01L	†	1300	9.67e+00	6.36e-01	3.01e-02	9.6e-17	0.8	4.0e-03	8.5	90.71	118	± 8
838-01M	†	1450	7.66e+00	7.27e-01	2.38e-02	5.0e-17	0.7	2.9e-03	8.9	96.75	98	± 7
838-01N	†	1600	7.80e+00	6.73e-01	2.40e-02	2.3e-17	0.8	1.9e-03	9.4	99.47	106	± 10
838-01O	†	1600	1.04e+02	5.83e-01	3.48e-01	4.4e-18	0.9	3.6e-03	0.8	100.00	123	± 113
total gas age					n=15	8.3e-16					99	± 24*
plateau age			MSWD=1.9		n=10		steps A-J			74.12	90	± 12*
isochron age			MSWD=4.6**		n=15		$^{40}Ar/^{36}Ar$ = 296.5 ± 1.2				94	± 12*
E83433: Cape Barne, 197.4 mg anorthoclase (<1% glass)					**J=0.0000788±0.0000002**		**Disc.=1.01070±0.00150**					
839-01A		700	1.24e+01	5.35e-01	4.02e-02	1.4e-16	1.0	6.0e-04	4.5	21.20	80	± 11
839-01B		750	4.77e+00	5.29e-01	1.43e-02	5.9e-17	1.0	1.4e-04	11.6	30.16	79	± 8
839-01C		800	2.43e+00	5.27e-01	5.98e-03	5.6e-17	1.0	5.0e-05	28.1	38.74	97	± 5
839-01D		850	1.83e+00	5.24e-01	4.21e-03	5.2e-17	1.0	3.9e-05	33.0	46.62	86	± 4
839-01E		900	1.67e+00	5.17e-01	3.38e-03	3.8e-17	1.0	1.3e-04	41.4	52.48	98	± 4
839-01F		950	1.69e+00	5.23e-01	3.56e-03	4.4e-17	1.0	3.3e-05	38.8	59.22	93	± 4
839-01G		1000	1.49e+00	5.26e-01	3.08e-03	4.9e-17	1.0	1.1e-04	40.2	66.67	85	± 3
839-01H		1050	1.47e+00	5.19e-01	2.98e-03	4.9e-17	1.0	1.4e-04	41.4	74.20	87	± 3
839-01I		1100	2.12e+00	5.19e-01	5.16e-03	3.4e-17	1.0	5.0e-06	28.8	79.44	87	± 4
839-01J	†	1150	3.11e+00	5.20e-01	6.94e-03	1.9e-17	1.0	1.0e-03	34.6	82.28	153	± 11
839-01K	†	1200	5.02e+00	5.18e-01	1.11e-02	9.8e-18	1.0	1.7e-03	34.7	83.77	248	± 13
839-01L	†	1300	1.82e+00	5.25e-01	3.20e-03	7.1e-17	1.0	7.3e-04	48.9	94.59	126	± 3
839-01M	†	1450	6.29e+00	5.28e-01	1.77e-02	7.7e-18	1.0	1.2e-03	17.0	95.76	152	± 20
839-01N	†	1650	3.28e+00	5.77e-01	7.74e-03	1.8e-17	0.9	1.1e-03	31.0	98.55	145	± 8
839-01O	†	1650	5.82e+01	5.19e-01	1.89e-01	9.5e-18	1.0	3.2e-03	3.9	100.00	320	± 65
total gas age					n=15	6.5e-16					101	± 14*
plateau age			MSWD=1.8		n=9		steps A-I			79.44	89	± 4*
isochron age			MSWD=32.0**		n=15		$^{40}Ar/^{36}Ar$ = 297.4 ± 1.9				97	± 4*
E83433: Cape Barne, 222.9 mg anorthoclase (~5% glass)					**J=0.0000806±0.0000002**		**Disc.=1.01070±0.00150**					
840-01A		700	1.52e+01	4.03e-01	4.92e-02	8.1e-17	1.3	1.9e-02	4.3	9.50	94	± 12
840-01B		750	9.56e+00	4.27e-01	2.99e-02	5.3e-17	1.2	2.3e-02	7.6	15.77	105	± 10
840-01C		800	7.16e+00	4.45e-01	2.21e-02	5.8e-17	1.1	2.1e-02	8.8	22.53	92	± 6
840-01D		850	6.71e+00	4.69e-01	2.07e-02	6.2e-17	1.1	1.7e-02	9.0	29.82	88	± 6
840-01E		900	7.39e+00	4.63e-01	2.33e-02	4.8e-17	1.1	1.5e-02	6.9	35.41	75	± 9
840-01F		950	8.74e+00	4.50e-01	2.78e-02	4.8e-17	1.1	1.2e-02	6.1	41.08	77	± 9
840-01G		1000	8.97e+00	4.60e-01	2.85e-02	5.9e-17	1.1	8.5e-03	6.2	48.03	81	± 9
840-01H		1050	1.16e+01	4.61e-01	3.73e-02	7.0e-17	1.1	9.1e-03	4.7	56.22	80	± 10
840-01I		1100	1.50e+01	4.72e-01	4.88e-02	7.2e-17	1.1	1.2e-02	4.0	64.69	87	± 12
840-01J	†	1150	1.53e+01	5.02e-01	4.91e-02	6.6e-17	1.0	1.3e-02	5.2	72.38	115	± 13
840-01K	†	1200	1.62e+01	5.26e-01	5.18e-02	4.3e-17	1.0	9.3e-03	5.8	77.39	136	± 15
840-01L	†	1300	1.05e+01	6.09e-01	3.30e-02	1.0e-16	0.8	5.4e-03	7.3	89.45	111	± 8
840-01M	†	1450	7.67e+00	6.87e-01	2.33e-02	6.0e-17	0.7	3.5e-03	10.4	96.46	117	± 7
840-01N	†	1600	7.68e+00	7.45e-01	2.38e-02	2.0e-17	0.7	2.9e-03	8.9	98.80	99	± 9
840-01O	†	1600	4.83e+01	5.70e-01	1.60e-01	1.0e-17	0.9	2.3e-03	1.9	100.00	137	± 50
total gas age					n=15	8.5e-16					97	± 20*
plateau age			MSWD=1.1		n=9		steps A-I			64.69	87	± 8*
isochron age			MSWD=3.2**		n=15		$^{40}Ar/^{36}Ar$ = 298.7 ± 1.7				82	± 14*

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Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E81001: Hooper's Shoulder, 97.4 mg anorthoclase (<1% glass)						**J=0.0000811±0.0000002**		**Disc.=1.01070±0.00150**				
841-01A		700	3.47e+01	3.72e-01	1.17e-01	2.1e-17	1.4	4.4e-04	0.1	5.41	5 ±	36
841-01B		750	1.02e+01	3.60e-01	3.32e-02	2.0e-17	1.4	4.3e-04	3.6	10.67	53 ±	12
841-01C		850	4.68e+00	3.62e-01	1.51e-02	2.8e-17	1.4	3.1e-04	5.0	17.94	34 ±	8
841-01D		900	3.29e+00	3.57e-01	1.03e-02	2.5e-17	1.4	1.6e-04	7.8	24.58	38 ±	8
841-01E		950	2.69e+00	3.56e-01	8.29e-03	1.8e-17	1.4	1.2e-04	9.1	29.24	36 ±	9
841-01F		1050	2.96e+00	3.56e-01	9.24e-03	2.9e-17	1.4	3.9e-05	7.8	36.87	34 ±	6
841-01G		1150	2.63e+00	3.58e-01	8.07e-03	3.5e-17	1.4	-1.6e-04	9.4	46.15	36 ±	6
841-01H	†	1300	3.60e+00	3.48e-01	1.07e-02	1.1e-16	1.5	2.8e-04	11.9	75.11	63 ±	4
841-01I	†	1450	2.13e+00	3.67e-01	5.68e-03	3.2e-17	1.4	5.8e-04	21.3	83.56	66 ±	5
841-01J	†	1650	1.50e+02	4.14e-01	5.06e-01	4.6e-17	1.2	1.7e-04	0.3	95.66	65 ±	154
841-01K	†	1650	1.32e+01	4.03e-01	4.37e-02	1.7e-17	1.3	6.3e-04	2.5	100.00	48 ±	19
total gas age					n=11	3.8e-16					47 ±	52*
plateau age			MSWD=0.5		n=7	steps A-G				46.15	36 ±	8*
isochron age			MSWD=6.3**		n=11	$^{40}Ar/^{36}Ar$ = 295.2 ± 1.7					51 ±	6*
E81001: Hooper's Shoulder, 93.3 mg anorthoclase (<1% glass)						**J=0.000081±0.0000002**		**Disc.=1.01070±0.00150**				
843-01A	†	700	9.53e+02	2.67e-01	3.18e+00	1.5e-19	1.9	2.7e-03	1.5	0.05	2026 ±	4704
843-01B	†	850	4.38e+01	3.67e-01	1.45e-01	1.9e-18	1.4	1.6e-03	2.5	0.68	160 ±	89
843-01C		950	1.36e+01	3.66e-01	4.48e-02	6.6e-18	1.4	3.0e-04	3.0	2.83	60 ±	25
843-01D		1100	9.09e+00	3.62e-01	2.98e-02	3.5e-17	1.4	2.8e-04	3.0	14.19	40 ±	11
843-01E		1250	3.77e+00	3.59e-01	1.24e-02	3.9e-17	1.4	1.2e-04	3.1	27.03	17 ±	6
843-01F		1350	3.24e+00	3.55e-01	1.03e-02	6.7e-17	1.4	9.6e-05	6.5	48.82	31 ±	4
843-01G	†	1450	4.82e+00	3.59e-01	1.45e-02	1.1e-16	1.4	4.7e-04	11.1	85.04	78 ±	4
843-01H	†	1600	2.41e+00	3.94e-01	7.20e-03	3.2e-17	1.3	5.0e-04	12.0	95.53	42 ±	5
843-01I	†	1625	1.12e+01	4.06e-01	3.74e-02	1.4e-17	1.3	7.4e-04	1.1	100.00	18 ±	17
total gas age					n=9	3.1e-16					50 ±	18*
plateau age			MSWD=2.5		n=4	steps C-F				48.14	28 ±	10*
isochron age			MSWD=17.2**		n=9	$^{40}Ar/^{36}Ar$ = 304.0 ± 2.4					28 ±	6*
E83400: Cape Evans, 157.4 mg anorthoclase (~1% glass)						**J=0.0000686±0.0000002**		**Disc.=1.00800±0.00150**				
1313-01A	†	250	4.03e+03	5.71e-01	1.35e+01	2.7e-18	0.9	-4.0e-02	1.2	0.26	5788 ±	59606
1313-01B	†	400	2.88e+03	6.50e-01	9.66e+00	4.7e-17	0.8	9.5e-03	0.8	0.43	2736 ±	7297
1313-01C	†	550	1.62e+02	4.79e-01	5.43e-01	8.1e-16	1.1	1.8e-03	1.2	3.22	235 ±	78
1313-01D		700	5.17e+00	4.22e-01	1.64e-02	3.8e-15	1.2	6.9e-04	6.6	16.53	42 ±	4
1313-01E		800	2.37e+00	4.24e-01	7.05e-03	3.6e-15	1.2	4.4e-04	12.7	29.05	37 ±	3
1313-01F		900	1.96e+00	4.30e-01	5.19e-03	3.7e-15	1.2	2.8e-04	22.3	41.89	54 ±	3
1313-01G		1000	3.68e+00	4.18e-01	1.14e-02	1.9e-15	1.2	7.6e-04	9.2	48.35	42 ±	6
1313-01H		1100	3.33e+00	4.52e-01	1.05e-02	2.1e-15	1.1	1.0e-03	7.4	55.77	30 ±	5
1313-01I	†	1200	2.97e+00	4.53e-01	8.53e-03	4.0e-15	1.1	6.7e-04	15.7	69.47	58 ±	3
1313-01J	†	1300	5.67e+00	4.65e-01	1.51e-02	2.3e-15	1.1	1.4e-03	21.4	77.44	151 ±	5
1313-01K	†	1400	3.63e+00	4.93e-01	1.04e-02	3.0e-15	1.0	6.2e-04	15.4	87.75	69 ±	6
1313-01L	†	1650	8.90e+00	5.00e-01	2.87e-02	2.9e-15	1.0	5.5e-04	4.7	97.75	52 ±	7
1313-01M	†	1650	1.57e+02	4.86e-01	5.27e-01	4.6e-16	1.0	5.3e-04	0.7	99.35	131 ±	105
1313-01N	†	1650	9.08e+02	4.94e-01	3.05e+00	1.9e-16	1.0	5.0e-03	0.8	100.00	940 ±	931
total gas age					n=12	2.9e-14					80 ±	80*
plateau age			MSWD=5.7**		n=5	steps D-H				52.55	42 ±	8*
isochron age			MSWD=65.4**		n=12	$^{40}Ar/^{36}Ar$ = 313.6 ± 2.1					33 ±	2*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E83448: Cape Royds, 110.9 mg anorthoclase (~2% glass)					**J=0.0000709±0.0000002**			**Disc.=1.00800±0.00150**				
1314-01A	†	550	2.26e+02	5.53e-01	7.60e-01	5.9e-16	0.9	1.9e-03	0.8	3.17	234	± 132
1314-01B		700	8.85e+00	5.27e-01	2.78e-02	1.6e-15	1.0	1.1e-03	7.5	12.08	85	± 15
1314-01C		800	-2.94e+00	5.25e-01	-1.16e-02	1.3e-15	1.0	8.3e-04	-17.0	19.38	64	± 7
1314-01D		900	4.09e-01	5.29e-01	-4.74e-04	1.4e-15	1.0	7.3e-04	138.8	27.21	73	± 6
1314-01E		1000	-1.21e-01	5.26e-01	-2.45e-03	1.1e-15	1.0	9.3e-04	-513.1	33.39	79	± 9
1314-01F		1100	5.44e+00	5.12e-01	1.65e-02	1.5e-15	1.0	1.2e-03	10.5	41.62	73	± 7
1314-01G	†	1200	6.75e+00	5.01e-01	2.02e-02	1.4e-15	1.0	2.2e-03	11.9	48.96	103	± 8
1314-01H	†	1300	8.49e+00	5.07e-01	1.92e-02	1.1e-15	1.0	3.1e-03	33.3	54.79	362	± 10
1314-01I	†	1400	3.62e+00	5.65e-01	7.20e-03	3.2e-15	0.9	9.8e-04	41.8	71.85	194	± 3
1314-01J	†	1600	8.18e+00	5.24e-01	2.44e-02	4.4e-15	1.0	5.2e-04	12.0	95.51	125	± 5
1314-01K	†	1600	3.35e+01	5.45e-01	1.11e-01	8.3e-16	0.9	6.0e-04	2.4	100.00	104	± 25
total gas age					n=11	1.8e-14					133	± 22*
plateau age			MSWD=0.6		n=5	steps B-F				38.45	73	± 10*
isochron age			MSWD=122**		n=11	$^{40}Ar/^{36}Ar$ = 297.3 ± 0.9					158	± 4*
AW82015: Turk's Head tephriphonolite, 117.3 mg anorthoclase (~2% glass)					**J=0.0000702±0.0000002**			**Disc.=1.00800±0.00150**				
1315-01A	†	550	1.19e+02	1.11e+00	3.96e-01	8.9e-16	0.5	1.3e-03	1.9	7.16	284	± 67
1315-01B		700	8.96e+00	1.11e+00	2.45e-02	2.1e-15	0.5	3.5e-04	19.9	23.70	226	± 8
1315-01C		800	5.32e+00	1.10e+00	1.18e-02	1.6e-15	0.5	3.2e-04	35.5	36.29	239	± 6
1315-01D		900	3.79e+00	1.11e+00	6.58e-03	1.4e-15	0.5	3.9e-04	50.4	47.25	242	± 6
1315-01E		1000	3.74e+00	1.11e+00	6.13e-03	1.2e-15	0.5	5.8e-04	53.3	56.84	253	± 5
1315-01F		1100	6.16e+00	1.12e+00	1.45e-02	1.3e-15	0.5	1.1e-03	31.3	66.87	244	± 7
1315-01G	†	1200	2.05e+01	1.08e+00	6.19e-02	9.7e-16	0.5	2.3e-03	11.0	74.67	286	± 14
1315-01H	†	1300	2.31e+01	1.05e+00	6.47e-02	5.4e-16	0.5	3.9e-03	17.5	79.03	511	± 26
1315-01I	†	1400	8.43e+00	1.12e+00	2.02e-02	1.9e-15	0.5	1.4e-03	30.0	94.61	321	± 5
1315-01J	†	1500	4.15e+01	1.05e+00	1.33e-01	3.6e-16	0.5	3.0e-03	5.3	97.50	280	± 46
1315-01K	†	1600	8.28e+01	1.66e+00	2.69e-01	2.2e-16	0.3	8.8e-03	4.0	99.30	424	± 84
1315-01L	†	1600	2.88e+02	1.15e+00	9.57e-01	8.7e-17	0.4	2.9e-03	1.9	100.00	685	± 369
total gas age					n=12	1.2e-14					278	± 34*
plateau age			MSWD=2.0		n=5	steps B-F				59.72	243	± 10*
isochron age			MSWD=31.9**		n=12	$^{40}Ar/^{36}Ar$ = 311.0 ± 4.0					235	± 8*
E81001: Hooper's Shoulder Cone, 102.8 mg anorthoclase (~1% glass)					**J=0.0000707±0.0000002**			**Disc.=1.00800±0.00150**				
1318-01A	†	550	7.21e+02	4.28e-01	2.39e+00	4.7e-17	1.2	7.1e-03	2.0	0.57	1814	± 1252
1318-01B	†	700	1.01e+01	3.47e-01	3.49e-02	5.0e-16	1.5	4.0e-04	-2.6	6.66	-33	± 22
1318-01C		800	1.69e+00	3.35e-01	5.18e-03	1.0e-15	1.5	3.4e-04	9.6	19.16	21	± 8
1318-01D		900	1.83e+00	3.34e-01	5.52e-03	1.3e-15	1.5	5.2e-05	11.1	35.37	26	± 7
1318-01E		1000	3.19e+00	3.30e-01	1.00e-02	1.6e-15	1.5	1.1e-04	7.4	54.75	30	± 6
1318-01F		1100	2.57e+00	3.21e-01	7.53e-03	1.4e-15	1.6	2.3e-04	13.4	72.05	44	± 6
1318-01G		1200	5.03e+00	3.30e-01	1.62e-02	1.1e-15	1.5	3.4e-04	4.7	85.16	30	± 9
1318-01H	†	1300	1.05e+01	3.29e-01	3.13e-02	8.0e-16	1.5	9.6e-04	12.0	94.96	162	± 13
1318-01I	†	1400	4.79e+01	3.66e-01	1.59e-01	1.4e-16	1.4	1.2e-03	2.0	96.71	123	± 92
1318-01J	†	1500	5.79e+01	3.92e-01	1.89e-01	8.5e-17	1.3	2.0e-03	3.4	97.75	250	± 124
1318-01K	†	1550	2.49e+02	3.64e-01	8.37e-01	1.0e-16	1.4	8.9e-04	0.8	99.02	250	± 343
1318-01L	†	1550	3.72e+02	4.29e-01	1.25e+00	7.9e-17	1.2	8.5e-03	0.7	100.00	341	± 412
total gas age					n=12	8.1e-15					60	± 60*
plateau age			MSWD=1.8		n=5	steps C-G				78.50	32	± 10*
isochron age			MSWD=9.0**		n=12	$^{40}Ar/^{36}Ar$ = 318.6 ± 3.2					10	± 2*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E83400: Cape Evans, 96.4 mg anorthoclase (~5% glass)						**J=0.0000695±0.0000002**		**Disc.=1.00800±0.00150**				
1320-01A	†	550	1.13e+04	1.25e+00	3.83e+01	3.7e-17	0.4	2.4e-02	-0.1	0.21	-1407	± 48445
1320-01B	†	700	6.45e+01	4.38e-01	2.16e-01	6.5e-16	1.2	3.4e-03	1.2	3.79	94	± 47
1320-01C		800	4.81e+00	3.37e-01	1.58e-02	2.4e-15	1.5	2.0e-03	3.2	16.79	19	± 5
1320-01D		900	1.53e+00	3.91e-01	4.33e-03	2.3e-15	1.3	1.5e-03	17.1	29.26	33	± 4
1320-01E		1000	1.62e+00	4.10e-01	4.64e-03	1.4e-15	1.2	3.4e-03	15.8	37.07	32	± 5
1320-01F		1100	3.53e+00	4.40e-01	1.07e-02	2.0e-15	1.2	4.0e-03	10.3	48.06	45	± 5
1320-01G	†	1200	2.46e+01	4.46e-01	8.04e-02	2.2e-15	1.1	4.2e-03	3.6	60.01	112	± 16
1320-01H	†	1300	6.25e+00	4.44e-01	1.88e-02	2.7e-15	1.1	1.7e-03	11.4	74.83	89	± 6
1320-01I	†	1400	4.83e+00	4.76e-01	1.49e-02	1.8e-15	1.1	5.5e-04	9.2	84.48	55	± 6
1320-01J	†	1500	7.91e+00	4.69e-01	2.53e-02	1.1e-15	1.1	6.8e-04	5.5	90.71	55	± 10
1320-01K	†	1550	1.41e+01	4.58e-01	4.64e-02	1.4e-15	1.1	5.7e-04	2.6	98.62	46	± 11
1320-01L	†	1550	6.86e+01	4.62e-01	2.28e-01	2.5e-16	1.1	-4.3e-04	1.7	100.00	148	± 68
total gas age					n=12	1.8e-14					60	± 220*
plateau age			MSWD=5.0**		n=4	steps C-F				44.27	32	± 12*
isochron age			MSWD=12.1**		n=12	$^{40}Ar/^{36}Ar$ = 301.6 ± 1.1					33	± 4*
E83454: Aurora Cliffs trachyte, 106.2 mg anorthoclase (~3% glass)						**J=0.0000699±0.0000002**		**Disc.=1.00800±0.00150**				
1321-01A	†	550	3.22e+03	2.78e-01	1.07e+01	2.0e-17	1.8	5.7e-02	1.7	0.08	7047	± 9528
1321-01B	†	700	8.34e+01	1.58e-01	2.66e-01	1.5e-16	3.2	1.1e-02	5.7	0.61	603	± 113
1321-01C	†	800	1.95e+01	1.54e-01	6.07e-02	6.1e-16	3.3	4.3e-03	7.9	2.88	194	± 19
1321-01D		900	1.02e+01	1.55e-01	2.99e-02	1.4e-15	3.3	1.6e-03	13.5	8.09	174	± 10
1321-01E		1000	8.81e+00	1.52e-01	2.56e-02	2.4e-15	3.3	1.0e-03	13.9	16.89	155	± 7
1321-01F		1100	7.78e+00	1.58e-01	2.04e-02	5.0e-15	3.2	6.5e-04	22.4	35.26	220	± 4
1321-01G		1200	8.95e+00	1.61e-01	2.57e-02	6.6e-15	3.2	2.4e-04	14.9	59.63	168	± 4
1321-01H	†	1300	7.62e+00	1.60e-01	2.06e-02	5.7e-15	3.2	1.6e-04	19.9	80.60	192	± 4
1321-01I	†	1400	6.30e+00	1.63e-01	1.54e-02	2.0e-15	3.1	1.0e-04	27.7	88.09	220	± 5
1321-01J	†	1500	7.28e+00	1.78e-01	1.96e-02	2.1e-15	2.9	3.2e-04	20.2	95.90	185	± 6
1321-01K	†	1575	1.98e+01	1.90e-01	6.15e-02	7.7e-16	2.7	-2.4e-05	8.4	98.76	209	± 17
1321-01L	†	1550	5.27e+01	1.82e-01	1.72e-01	3.4e-16	2.8	4.7e-04	3.5	100.00	231	± 50
total gas age					n=12	2.7e-14					192	± 32*
plateau age			MSWD=40.6**		n=4	steps D-G				56.76	166	± 10*
isochron age			MSWD=20.2**		n=12	$^{40}Ar/^{36}Ar$ = 294.2 ± 1.5					197	± 8*
E81002: Abbott Peak tephriphonolite, 107.6 mg plagioclase (<1% glass)						**J=0.0000702±0.0000002**		**Disc.=1.00800±0.00150**				
1326-01A	†	550	3.67e+03	3.16e+00	1.23e+01	1.6e-17	0.2	3.4e-02	0.6	0.36	2826	± 31565
1326-01B		700	2.03e+02	4.65e+00	6.77e-01	2.5e-16	0.1	1.4e-03	1.6	6.22	420	± 143
1326-01C		800	8.91e+00	5.04e+00	1.68e-02	1.2e-15	0.1	3.9e-04	48.3	34.77	546	± 8
1326-01D		900	5.84e+00	5.26e+00	6.23e-03	8.7e-16	0.1	3.7e-04	75.0	55.13	556	± 10
1326-01E		1000	6.52e+00	4.42e+00	1.08e-02	6.7e-16	0.1	9.7e-04	55.9	70.85	463	± 13
1326-01F		1100	6.52e+00	4.77e+00	1.03e-02	3.6e-16	0.1	9.0e-04	58.7	79.12	486	± 30
1326-01G	†	1200	5.98e+00	4.00e+00	5.80e-03	2.5e-16	0.1	2.4e-03	76.1	84.86	578	± 38
1326-01H	†	1300	2.93e+00	3.52e+00	-2.47e-04	1.1e-16	0.1	4.6e-03	111.0	87.52	412	± 93
1326-01I	†	1400	2.35e+01	4.54e+00	6.01e-02	1.7e-16	0.1	3.4e-03	25.7	91.50	767	± 67
1326-01J	†	1500	1.93e+01	3.96e+00	5.47e-02	2.3e-16	0.1	2.6e-03	17.8	96.88	437	± 34
1326-01K	†	1550	1.25e+02	5.39e+00	3.98e-01	7.1e-17	0.1	7.2e-04	6.6	98.53	1044	± 251
1326-01L	†	1550	1.46e+02	3.90e+00	4.79e-01	6.3e-17	0.1	2.6e-03	3.5	100.00	647	± 232
total gas age					n=12	4.3e-15					540	± 300*
plateau age			MSWD=10.2**		n=5	steps B-F				78.76	531	± 38*
isochron age			MSWD=15.3**		n=12	$^{40}Ar/^{36}Ar$ = 295.0 ± 4.1					536	± 14*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E82405: Bomb Peak trachyte, 115.6 mg anorthoclase (<1% glass)						**J=0.0000701±0.0000002**		**Disc.=1.00800±0.00150**				
1327-01A	†	550	8.45e+02	9.88e-01	2.86e+00	4.0e-17	0.5	-1.2e-03	0.1	0.10	59	± 1762
1327-01B	†	700	5.86e+02	2.09e-01	1.96e+00	5.8e-17	2.4	3.0e-03	1.1	0.24	838	± 891
1327-01C	†	800	8.01e+00	1.06e-01	2.26e-02	5.5e-16	4.8	4.8e-04	16.4	1.59	166	± 17
1327-01D		900	3.26e+00	6.34e-02	6.98e-03	2.1e-15	8.0	1.1e-04	36.2	6.83	149	± 4
1327-01E		1000	2.72e+00	5.64e-02	5.02e-03	4.4e-15	9.0	1.3e-04	44.9	17.73	154	± 2
1327-01F		1100	2.47e+00	5.00e-02	4.22e-03	6.7e-15	10.2	8.5e-06	48.8	34.36	152	± 1
1327-01G		1200	2.39e+00	5.35e-02	3.69e-03	9.5e-15	9.5	-8.1e-07	53.6	57.96	162	± 1
1327-01H	†	1300	2.41e+00	4.97e-02	3.85e-03	1.0e-14	10.3	3.4e-05	52.1	83.86	159	± 1
1327-01I	†	1400	2.94e+00	5.07e-02	5.42e-03	4.3e-15	10.1	-7.4e-05	44.9	94.44	167	± 2
1327-01J	†	1500	1.24e+01	7.19e-02	3.66e-02	5.3e-16	7.1	3.9e-06	12.3	95.74	192	± 19
1327-01K	†	1550	9.29e+00	1.59e-01	2.65e-02	1.1e-15	3.2	-3.3e-05	15.8	98.41	185	± 10
1327-01L	†	1550	1.46e+01	1.38e-01	4.40e-02	6.4e-16	3.7	-1.6e-04	11.0	100.00	203	± 18
total gas age					n=12	4.0e-14					161	± 12*
plateau age			MSWD=10.8**		n=4		steps D-G			56.37	157	± 6*
isochron age			MSWD=6.6**		n=12		$^{40}Ar/^{36}Ar$ = 303.4 ± 2.1				154	± 2*
E80020: Three Sister's Cones, 110.5 mg anorthoclase (~4% glass)						**J=0.0000699±0.0000002**		**Disc.=1.00800±0.00150**				
1329-01A	†	550	2.46e+03	7.29e-01	8.29e+00	7.8e-17	0.7	1.4e-02	0.4	0.36	1101	± 3972
1329-01B	†	700	5.75e+01	5.21e-01	1.91e-01	2.3e-16	1.0	8.8e-04	1.8	1.44	131	± 68
1329-01C		800	1.86e+00	4.05e-01	5.83e-03	1.9e-15	1.3	4.7e-04	8.0	10.04	19	± 5
1329-01D		900	9.25e-01	3.81e-01	2.54e-03	3.2e-15	1.3	3.4e-04	19.8	24.77	23	± 3
1329-01E		1000	7.23e-01	3.78e-01	1.75e-03	4.5e-15	1.3	3.1e-04	29.3	45.57	27	± 2
1329-01F		1100	1.23e+00	3.66e-01	3.44e-03	4.3e-15	1.4	3.6e-04	17.6	65.36	27	± 2
1329-01G	†	1200	1.64e+00	3.61e-01	4.50e-03	2.9e-15	1.4	4.3e-04	19.1	78.86	40	± 3
1329-01H	†	1300	2.96e+00	3.67e-01	8.29e-03	2.4e-15	1.4	1.0e-03	17.6	89.83	66	± 4
1329-01I	†	1400	1.19e+01	3.62e-01	3.68e-02	5.5e-16	1.4	1.0e-03	8.4	92.39	125	± 20
1329-01J	†	1500	1.16e+01	4.08e-01	3.63e-02	6.8e-16	1.2	6.8e-04	7.7	95.54	112	± 19
1329-01K	†	1650	2.88e+01	4.00e-01	9.42e-02	8.5e-16	1.3	7.3e-04	3.4	99.48	123	± 25
1329-01L	†	1650	2.70e+02	4.25e-01	9.38e-01	1.1e-16	1.2	-1.7e-03	-2.8	100.00	-945	± 870
total gas age					n=12	2.2e-14					40	± 40*
plateau age			MSWD=1.1		n=4		steps C-F			63.93	26	± 4*
isochron age			MSWD=10.4**		n=12		$^{40}Ar/^{36}Ar$ = 311.8 ± 1.8				24	± 2*
AW82038: Turks Head tephrite, 148.6 mg plagioclase (~5% glass)						**J=0.0000704±0.0000002**		**Disc.=1.00800±0.00150**				
1422-01A	†	700	9.29e+01	6.40e+00	3.06e-01	1.6e-15	0.1	1.2e-02	3.2	27.18	377	± 52
1422-01B		850	8.47e+00	7.51e+00	1.96e-02	1.2e-15	0.1	6.8e-03	38.0	46.90	412	± 11
1422-01C		1000	6.13e+00	7.47e+00	1.29e-02	9.5e-16	0.1	5.0e-03	47.0	62.88	368	± 9
1422-01D		1100	7.52e+00	7.79e+00	1.79e-02	5.9e-16	0.1	4.1e-03	37.3	72.81	359	± 11
1422-01E	†	1200	1.25e+01	7.84e+00	3.33e-02	4.3e-16	0.1	7.4e-03	25.8	80.15	411	± 17
1422-01F	†	1300	2.30e+01	8.47e+00	7.16e-02	1.6e-16	0.1	4.9e-03	10.8	82.79	317	± 57
1422-01G	†	1450	4.00e+01	8.59e+00	1.25e-01	3.0e-16	0.1	4.7e-03	9.3	87.91	478	± 47
1422-01H	†	1700	4.05e+01	8.69e+00	1.28e-01	7.2e-16	0.1	1.8e-03	8.0	100.00	412	± 32
total gas age					n=8	5.9e-15					390	± 60*
plateau age			MSWD=7.3**		n=3		steps A-D			72.81	378	± 28*
isochron age			MSWD=5.4**		n=8		$^{40}Ar/^{36}Ar$ = 297.4 ± 1.1				376	± 10*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1σ)
E83432: Cape Barne tephrite, 91.7 mg whole rock					**J=0.0000692±0.0000002**		**Disc.=1.00800±0.00150**					
1528-01A	†	500	1.91e+02	1.03e+00	5.97e-01	9.7e-16	0.5	1.1e-01	7.5	5.56	1785	± 118
1528-01B		600	1.77e+01	9.61e-01	2.49e-02	2.0e-15	0.5	8.6e-02	58.8	17.27	1301	± 10
1528-01C		675	1.42e+01	8.90e-01	1.30e-02	3.0e-15	0.6	9.2e-02	73.2	34.29	1297	± 7
1528-01D		825	1.18e+01	3.52e-01	1.31e-03	6.0e-17	1.5	1.0e-01	96.8	34.63	1424	± 160
1528-01E		900	1.58e+01	6.02e-01	1.78e-02	6.5e-15	0.8	9.2e-02	66.9	71.76	1318	± 6
1528-01F	†	1050	1.82e+01	7.83e-01	2.60e-02	2.0e-15	0.7	8.2e-02	58.1	83.36	1323	± 10
1528-01G	†	1250	3.81e+01	2.27e+00	9.60e-02	1.3e-15	0.2	6.1e-02	25.9	90.60	1230	± 27
1528-01H	†	1650	5.44e+01	1.20e+01	1.56e-01	1.5e-15	0.0	1.4e-01	16.9	99.42	1156	± 35
1528-01I	†	1650	1.43e+02	1.67e+01	4.62e-01	1.0e-16	0.0	8.5e-02	5.3	100.00	958	± 271
total gas age				n=9		1.7e-14					1316	± 38*
plateau age			MSWD=2.3	n=4		steps B-E				66.19	1310	± 16*
isochron age			MSWD=4.0**	n=9		$^{40}Ar/^{36}Ar$ = 290.6 ± 2.4					1321	± 16*
E77012: Tryggve Pt. dike phonotephrite, 109.5 mg plagioclase (~1% glass)					**J=0.0000704±0.0000002**		**Disc.=1.00800±0.00150**					
1536-01A	†	500	2.15e+02	3.23e+00	7.18e-01	3.0e-16	0.2	2.7e-02	1.4	2.80	375	± 244
1536-01B		600	2.41e+01	3.21e+00	7.23e-02	6.2e-16	0.2	1.3e-02	12.3	8.48	377	± 27
1536-01C	†	675	6.16e+01	3.02e-01	7.65e-02	1.9e-18	1.7	5.0e-02	63.3	8.50	4949	± 3993
1536-01D		750	9.10e+00	3.29e+00	2.09e-02	1.2e-15	0.2	1.5e-02	34.8	19.67	402	± 12
1536-01E		783	7.90e+00	3.47e+00	1.77e-02	2.3e-16	0.1	2.3e-02	36.8	21.78	370	± 33
1536-01F		900	7.06e+00	3.05e+00	1.29e-02	8.7e-16	0.2	2.1e-02	49.0	29.75	441	± 14
1536-01G		1050	3.89e+00	3.31e+00	4.47e-03	1.1e-15	0.2	7.1e-03	72.1	40.23	357	± 11
1536-01H		1250	6.99e+00	2.56e+00	6.87e-03	1.1e-15	0.2	5.3e-02	73.4	50.77	653	± 10
1536-01I		1650	4.87e+00	4.14e+00	7.84e-03	5.4e-15	0.1	4.6e-03	58.5	100.00	363	± 3
total gas age				n=8		1.1e-14					375	± 32*
plateau age			MSWD=134.5**	n=7		steps B-I (no C)				97.20	368	± 18*
isochron age			MSWD=11.6**	n=8		$^{40}Ar/^{36}Ar$ = 302.1 ± 3.0					374	± 14*
E83407: Inaccessible Island phonolite, 99.0 mg whole rock					**J=0.0000705±0.0000002**		**Disc.=1.00800±0.00150**					
1537-01A	†	500	3.14e+01	1.09e-01	8.34e-02	1.7e-15	4.7	1.3e-02	21.5	4.11	859	± 25
1537-01B		600	6.92e+00	6.44e-02	1.00e-02	3.9e-15	7.9	6.9e-03	56.9	13.50	500	± 6
1537-01C		675	8.01e+00	5.99e-02	1.29e-02	6.2e-15	8.5	1.1e-02	52.1	28.36	530	± 6
1537-01D		750	-1.10e+01	0.00e+00	-5.22e-02	7.1e-17	- -	1.7e-02	-39.9	28.53	559	± 131
1537-01E		825	8.20e+00	8.49e-02	1.34e-02	6.5e-15	6.0	2.2e-02	51.5	44.06	537	± 4
1537-01F		900	7.58e+00	1.01e-01	1.09e-02	3.7e-15	5.1	3.4e-02	57.4	52.81	553	± 5
1537-01G		1050	7.10e+00	1.36e-01	9.44e-03	7.9e-15	3.7	3.5e-02	60.5	71.62	546	± 3
1537-01H		1250	8.16e+00	6.16e-01	1.33e-02	9.6e-15	0.8	3.0e-02	52.2	94.39	541	± 4
1537-01I		1650	1.10e+01	5.58e-01	2.23e-02	2.4e-15	0.9	8.0e-03	40.0	100.00	558	± 10
total gas age				n=9		4.2e-14					551	± 12*
plateau age			MSWD=9.4**	n=8		steps B-I				95.89	539	± 12*
isochron age			MSWD=10.9**	n=9		$^{40}Ar/^{36}Ar$ = 304.0 ± 5.0					527	± 16*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E83453: SW of Abbott Peak phonotephrite, 100.5 mg whole rock						**J=0.0000696±0.0000002**		**Disc.=1.00800±0.00150**				
1865-01A	†	500	4.33e+03	1.36e+00	1.45e+01	3.8e-16	0.4	6.3e-02	1.4	1.05	7573 ±	5463
1865-01B	†	600	3.10e+02	3.00e-01	1.02e+00	2.8e-15	1.7	1.8e-02	2.6	8.97	1027 ±	176
1865-01C		700	3.03e+01	3.32e-01	9.08e-02	7.1e-15	1.5	1.0e-02	11.4	28.70	434 ±	16
1865-01D		800	2.64e+01	3.86e-01	7.66e-02	4.2e-15	1.3	6.7e-03	14.1	40.52	468 ±	15
1865-01E		900	2.70e+01	4.78e-01	7.82e-02	3.4e-15	1.1	7.2e-03	14.6	49.91	495 ±	20
1865-01F		1000	4.39e+01	6.08e-01	1.34e-01	2.5e-15	0.8	9.3e-03	9.7	56.78	537 ±	26
1865-01G		1100	1.07e+02	6.59e-01	3.47e-01	1.9e-15	0.8	1.0e-02	3.8	62.15	507 ±	64
1865-01H		1200	1.52e+01	1.54e+00	4.18e-02	1.1e-14	0.3	1.6e-02	19.3	92.27	369 ±	9
1865-01I		1300	1.55e+01	7.43e+00	4.19e-02	2.6e-15	0.1	3.6e-02	23.6	99.60	461 ±	12
1865-01J	†	1400	5.08e+01	1.99e+01	1.46e-01	1.6e-16	0.0	4.4e-02	18.1	100.04	1172 ±	129
1865-01K	†	*1650*	*3.20e+02*	*7.54e+01*	*1.20e+00*	*2.7e-17*	*0.0*	*3.5e-02*	*-9.3*	*100.12*	*-3954* ±	*2883*
1865-01L	†	1650	-2.07e+02	0.00e+00	-8.18e-01	-4.2e-17	- -	1.9e-02	-16.6	100.00	4309 ±	1411
total gas age					n=11	3.6e-14					550 ±	180*
plateau age			MSWD=15.0**		n=7		steps C-I			90.63	430	40*
isochron age			MSWD=10.8**		n=11		$^{40}Ar/^{36}Ar$ = 301.2 ± 1.0				388 ±	18*
E93011: NW of Hooper's Shoulder Cone, 119.1 mg anorthoclase (~2% glass)						**J=0.000075488±0.0000002**		**Disc.=1.00750±0.0023**				
2644-01A	†	550	1.38e+02	3.09e-01	5.44e-01	3.6e-16	1.7	3.3e-02	-16.3	0.72	-3070 ±	857
2644-01B	†	700	1.45e+01	6.21e-01	4.47e-02	3.2e-15	0.8	2.1e-03	9.2	7.00	183 ±	76
2644-01C		800	6.40e+00	5.65e-01	1.92e-02	7.9e-15	0.9	7.2e-04	11.7	22.57	102 ±	11
2644-01D		900	4.75e+00	5.58e-01	1.29e-02	8.7e-15	0.9	3.5e-04	19.8	39.69	128 ±	7
2644-01E		1000	4.05e+00	5.45e-01	1.05e-02	1.0e-14	0.9	1.0e-04	23.8	59.91	131 ±	5
2644-01F		1100	4.14e+00	5.41e-01	1.14e-02	8.0e-15	0.9	4.4e-04	19.3	75.76	109 ±	5
2644-01G	†	1200	7.02e+00	5.37e-01	1.89e-02	5.1e-15	1.0	8.5e-03	20.9	85.84	200 ±	9
2644-01H	†	1300	5.69e+00	5.36e-01	1.22e-02	4.3e-15	1.0	1.8e-03	37.1	94.36	288 ±	7
2644-01I	†	1400	4.22e+00	5.52e-01	7.33e-03	1.6e-15	0.9	1.3e-03	49.2	97.53	283 ±	22
2644-01J	†	1550	1.25e+01	5.54e-01	3.47e-02	5.9e-16	0.9	9.8e-04	18.3	98.71	313 ±	75
2644-01K	†	1750	4.34e+01	5.45e-01	1.41e-01	9.3e-16	0.9	8.9e-04	4.0	100.55	238 ±	122
2644-01L	†	1750	-1.09e+02	6.58e-01	-3.62e-01	-2.8e-16	0.8	-4.0e-03	1.4	100.00	-212 ±	401
total gas age					n=12	5.1e-14					135 ±	38*
plateau age			MSWD=4.7**		n=4		steps C-F			68.76	121 ±	14*
isochron age			MSWD=66.9**		n=12		$^{40}Ar/^{36}Ar$ = 380.0 ± 8.6				100 ±	6*
E93021: SE of Hooper's Shoulder Cone, 115.5 mg anorthoclase (~2% glass)						**J=0.000075547±0.0000002**		**Disc.=1.00750±0.0023**				
2645-01A	†	550	2.00e+02	2.84e-01	6.64e-01	3.9e-16	1.8	1.8e-02	1.8	0.87	502 ±	1294
2645-01B		700	1.23e+01	5.96e-01	3.89e-02	2.7e-15	0.9	5.6e-04	6.6	6.81	111 ±	18
2645-01C		800	4.85e+00	5.72e-01	1.40e-02	9.6e-15	0.9	1.2e-04	15.1	28.15	100 ±	6
2645-01D		900	4.52e+00	5.67e-01	1.22e-02	7.2e-15	0.9	1.0e-04	20.6	44.28	127 ±	7
2645-01E		1000	4.31e+00	5.66e-01	1.19e-02	7.1e-15	0.9	5.7e-05	18.9	60.06	111 ±	6
2645-01F		1100	5.07e+00	5.59e-01	1.47e-02	6.2e-15	0.9	6.2e-04	14.7	73.91	102 ±	7
2645-01G	†	1200	1.15e+01	5.52e-01	3.41e-02	3.1e-15	0.9	1.5e-02	12.4	80.78	194 ±	16
2645-01H	†	1300	5.44e+00	5.24e-01	1.28e-02	8.6e-16	1.0	2.0e-03	30.8	82.71	228 ±	22
2645-01I	†	1400	2.48e+00	5.68e-01	4.15e-03	2.8e-15	0.9	9.0e-04	51.5	88.91	174 ±	7
2645-01J	†	1550	4.62e+00	5.77e-01	1.14e-02	2.2e-15	0.9	1.1e-03	27.5	93.79	173 ±	11
2645-01K	†	1750	2.44e+01	5.62e-01	7.69e-02	2.4e-15	0.9	2.5e-04	6.9	99.21	230 ±	29
2645-01L	†	1750	1.28e+02	5.53e-01	4.18e-01	3.5e-16	0.9	2.2e-03	3.2	100.00	559 ±	202
total gas age					n=12	4.5e-14					140 ±	40*
plateau age			MSWD=2.8**		n=5		steps B-F			73.04	110 ±	12*
isochron age			MSWD=20.6**		n=12		$^{40}Ar/^{36}Ar$ = 298.4 ± 2.3				124 ±	8*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E93019: between William's Cliff and Turk's Head, 115.4 mg anorthoclase (~2% glass) J=0.000075951±0.0000002 Disc.=1.00750±0.0023												
2647-01A	†	550	1.25e+02	9.47e-01	4.89e-01	2.8e-16	0.5	2.5e-02	-15.5	0.96	-2663	1410
2647-01B		700	7.99e+00	1.32e+00	2.17e-02	4.9e-15	0.4	2.6e-04	20.9	17.85	229	10
2647-01C		800	7.69e+00	1.30e+00	2.02e-02	5.6e-15	0.4	6.3e-04	23.6	36.87	248	10
2647-01D		900	6.37e+00	1.30e+00	1.58e-02	5.3e-15	0.4	-1.7e-04	28.0	55.06	245	9
2647-01E		1000	7.30e+00	1.34e+00	1.83e-02	3.3e-15	0.4	1.5e-04	27.0	66.23	270	10
2647-01F		1100	6.21e+00	1.36e+00	1.57e-02	2.9e-15	0.4	1.2e-03	26.5	76.18	226	11
2647-01G	†	1200	1.35e+01	1.36e+00	3.91e-02	1.7e-15	0.4	3.6e-02	15.0	81.97	278	20
2647-01H	†	1300	3.00e+01	1.45e+00	9.48e-02	1.3e-15	0.4	3.0e-03	7.0	86.44	287	42
2647-01I	†	1400	8.91e+00	1.49e+00	2.45e-02	3.1e-15	0.3	1.4e-03	19.6	97.00	240	12
2647-01J	†	1550	3.15e+01	1.43e+00	9.85e-02	3.1e-16	0.4	2.5e-03	7.8	98.04	338	77
2647-01K	†	1750	1.94e+02	1.08e+00	6.42e-01	3.9e-16	0.5	1.9e-03	2.5	99.38	663	274
2647-01L	†	1750	3.24e+02	8.62e-01	1.08e+00	1.8e-16	0.6	6.5e-03	1.8	100.00	810	542
total gas age					n=12	2.9e-14					230	60*
plateau age			MSWD=3.0**		n=5	steps B-F				75.22	243	18*
isochron age			MSWD=2.4**		n=12	$^{40}Ar/^{36}Ar$ = 301.3 ± 3.4					229	20*
E93020: William's Cliff, 109.0 mg anorthoclase (~2% glass) J=0.000075854±0.0000002 Disc.=1.00750±0.0023												
2648-01A	†	550	1.88e+02	6.96e-01	6.52e-01	2.3e-16	0.7	3.2e-02	-2.7	0.67	-703	926
2648-01B		700	1.48e+01	8.19e-01	4.86e-02	2.8e-15	0.6	4.5e-04	3.1	8.71	63	19
2648-01C		800	7.86e+00	8.07e-01	2.53e-02	6.1e-15	0.6	8.2e-04	5.5	26.18	60	10
2648-01D		900	6.25e+00	8.30e-01	1.99e-02	4.6e-15	0.6	2.3e-04	6.6	39.27	56	10
2648-01E		1000	6.15e+00	8.37e-01	1.92e-02	3.5e-15	0.6	4.6e-04	8.3	49.32	70	11
2648-01F		1100	4.87e+00	8.30e-01	1.51e-02	3.8e-15	0.6	1.4e-03	9.0	60.19	60	9
2648-01G		1200	1.22e+01	8.11e-01	4.01e-02	2.4e-15	0.6	2.0e-02	2.8	67.14	46	19
2648-01H		1300	1.57e+01	7.87e-01	5.24e-02	3.5e-15	0.6	1.9e-03	1.7	77.28	36	21
2648-01I		1400	5.90e+00	8.36e-01	1.88e-02	4.2e-15	0.6	1.0e-03	6.4	89.25	52	9
2648-01J		1550	9.18e+00	8.30e-01	3.03e-02	1.0e-15	0.6	1.3e-03	3.0	92.25	38	25
2648-01K	†	1750	2.74e+01	8.29e-01	9.00e-02	2.2e-15	0.6	6.8e-04	3.1	98.67	118	32
2648-01L	†	1750	6.53e+01	8.17e-01	2.17e-01	4.6e-16	0.6	-7.0e-04	2.0	100.00	178	111
total gas age					n=12	3.5e-14					60	40*
plateau age			MSWD=0.5		n=9	steps B-J				91.58	57	10*
isochron age			MSWD=0.5		n=12	$^{40}Ar/^{36}Ar$ = 293.1 ± 2.9					65	18*
E93005: Fang Ridge tephriphonolite, 111.5 mg plagioclase (<1% glass) J=0.00007544±0.0000002 Disc.=1.00750±0.0023												
2651-01A	†	550	4.63e+02	1.35e+00	1.64e+00	9.7e-17	0.4	7.7e-02	-4.5	2.67	-2865	5006
2651-01B	†	700	7.09e+01	8.77e+00	2.23e-01	3.2e-16	0.1	6.2e-03	8.1	11.48	784	130
2651-01C	†	800	1.96e+01	9.42e+00	4.98e-02	9.9e-16	0.1	2.2e-03	28.5	38.69	765	33
2651-01D	†	900	2.25e+01	9.46e+00	5.42e-02	5.2e-16	0.1	2.1e-03	32.0	52.85	988	51
2651-01E	†	1000	2.32e+01	9.26e+00	4.85e-02	2.9e-16	0.1	3.2e-03	41.2	60.94	1306	71
2651-01F	†	1150	2.06e+01	9.24e+00	4.91e-02	6.3e-16	0.1	4.6e-03	32.8	78.31	923	37
2651-01G	†	1300	5.30e+01	8.32e+00	1.40e-01	1.9e-16	0.1	1.8e-01	23.2	83.52	1686	133
2651-01H	†	1450	2.03e+01	8.54e+00	5.41e-02	6.0e-16	0.1	1.3e-02	24.2	100.00	672	40
total gas age					n=6	3.6e-15					700	400*
plateau age			MSWD=N.A.		n=0	steps N.A.					N.A.	
isochron age			MSWD=25.0**		n=6	$^{40}Ar/^{36}Ar$ = 315.8 ± 5.2					718	66*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E93007: Fang Ridge tephriphonolite, 124.6 mg plagioclase (<1% glass)						**J=0.00007593±0.0000002**		**Disc.=1.00750±0.0023**				
2652-01A	†	550	1.78e+02	3.97e+00	6.00e-01	8.1e-17	0.1	5.3e-02	0.7	1.38	181 ±	2018
2652-01B	†	700	2.63e+01	9.36e+00	6.79e-02	4.1e-16	0.1	3.2e-03	26.3	8.41	951 ±	59
2652-01C	†	800	1.95e+01	9.60e+00	4.63e-02	6.5e-16	0.1	2.3e-03	33.6	19.55	906 ±	36
2652-01D	†	900	2.78e+01	9.21e+00	7.17e-02	2.7e-16	0.1	2.9e-03	26.3	24.12	1008 ±	82
2652-01E	†	1000	2.82e+01	8.78e+00	6.70e-02	1.6e-16	0.1	5.8e-03	32.0	26.85	1241 ±	111
2652-01F		1150	5.17e+01	8.30e+00	1.62e-01	1.9e-16	0.1	1.5e-02	8.7	30.07	621 ±	115
2652-01G		1300	1.25e+02	7.51e+00	3.90e-01	1.8e-16	0.1	1.7e-01	8.0	33.17	1372 ±	221
2652-01H		1450	1.67e+01	8.74e+00	3.95e-02	6.8e-16	0.1	7.1e-03	34.0	44.71	781 ±	30
2652-01I		1750	9.39e+00	9.45e+00	1.51e-02	3.1e-15	0.1	8.7e-04	60.0	96.97	777 ±	10
2652-01J		1750	2.24e+01	8.67e+00	6.12e-02	1.8e-16	0.1	-6.5e-04	22.0	100.00	679 ±	103
total gas age				n=8		5.9e-15					810 ±	120*
plateau age			MSWD=0.9	n=0		steps F-J (no G)				73.15	776 ±	28*
isochron age			MSWD=5.7**	n=8		$^{40}Ar/^{36}Ar$ = 308.2 ± 2.7					758 ±	20*
E93023: NE of Abbott Peak, 105.2 mg whole rock						**J=0.000075377±0.0000002**		**Disc.=1.00750±0.0023**				
2653-01A	†	550	4.21e+01	3.38e-01	1.29e-01	2.3e-15	1.5	4.0e-02	9.6	4.03	549 ±	56
2653-01B		650	7.10e+00	3.24e-01	1.45e-02	7.9e-15	1.6	1.7e-02	39.7	18.02	383 ±	7
2653-01C		775	8.39e+00	3.41e-01	1.79e-02	7.6e-15	1.5	2.3e-02	37.1	31.39	423 ±	8
2653-01D		900	8.51e+00	2.45e-01	1.80e-02	5.5e-15	2.1	2.1e-02	37.3	41.07	431 ±	8
2653-01E		1000	8.17e+00	2.39e-01	1.72e-02	5.3e-15	2.1	1.8e-02	37.6	50.35	418 ±	8
2653-01F		1100	7.18e+00	2.45e-01	1.45e-02	8.2e-15	2.1	2.3e-02	40.4	64.82	394 ±	6
2653-01G		1250	6.85e+00	8.19e-01	1.33e-02	2.0e-14	0.6	2.5e-02	43.1	99.27	401 ±	5
2653-01H	†	1400	3.60e+01	1.01e+01	1.12e-01	4.1e-16	0.1	2.3e-02	10.3	99.99	507 ±	80
2653-01I	†	1750	1.13e+02	1.62e+01	3.76e-01	1.4e-16	0.0	-9.6e-02	2.4	100.25	369 ±	377
2653-01J	†	1750	-1.32e+01	0.00e+00	-6.06e-02	-1.4e-16	- -	1.1e-01	-35.8	100.00	642 ±	120
total gas age				n=10		5.7e-14					410 ±	20*
plateau age			MSWD=6.3**	n=6		steps B-G				95.24	406 ±	16*
isochron age			MSWD=4.2**	n=10		$^{40}Ar/^{36}Ar$ = 315.4 ± 5.4					364 ±	24*
E93012: Fang Ridge tephrite, 114.7 mg whole rock						**J=0.00007617±0.0000002**		**Disc.=1.00750±0.0023**				
2654-01A	†	550	6.28e+02	2.17e+00	2.04e+00	1.4e-15	0.2	2.9e-02	3.9	19.18	3329 ±	760
2654-01B		650	2.69e+02	3.32e+00	8.93e-01	1.2e-15	0.2	9.0e-03	1.8	36.42	680 ±	1010
2654-01C		775	4.30e+01	2.89e+00	1.09e-01	1.2e-15	0.2	1.0e-02	25.5	54.03	1511 ±	231
2654-01D		900	4.01e+01	2.56e+00	9.67e-02	5.5e-16	0.2	9.3e-03	29.2	61.84	1608 ±	148
2654-01E		1000	3.61e+01	4.92e+00	9.68e-02	2.3e-16	0.1	1.9e-02	21.7	65.08	1079 ±	112
2654-01F		1100	5.40e+01	7.02e+00	1.31e-01	1.6e-16	0.1	2.3e-02	29.4	67.30	2189 ±	573
2654-01G		1250	4.75e+01	3.02e+01	1.46e-01	1.3e-15	0.0	6.4e-02	14.0	85.61	931 ±	61
2654-01H		1400	6.19e+01	5.31e+01	1.93e-01	5.8e-16	0.0	3.1e-02	14.2	93.81	1255 ±	95
2654-01I		1750	3.89e+01	1.37e+01	1.15e-01	3.2e-16	0.0	5.8e-03	15.6	98.36	843 ±	91
2654-01J		1750	2.85e+01	5.94e+00	6.54e-02	1.2e-16	0.1	1.6e-03	33.8	100.00	1330 ±	224
total gas age				n=10		7.1e-15					1500 ±	800*
plateau age			MSWD=4.7**	n=9		steps B-J				80.82	1070 ±	180*
isochron age			MSWD=8.5**	n=10		$^{40}Ar/^{36}Ar$ = 307.1 ± 8.9					849 ±	194*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1□)
E93024: between Abbott Peak and E93011, 115.9 mg whole rock						**J=0.000075726±0.0000002**			**Disc.=1.00750±0.0023**			
2655-01A	†	550	9.03e+02	5.93e-01	2.98e+00	9.3e-16	0.9	4.1e-02	2.4	1.74	2918 ±	2381
2655-01B	†	650	1.28e+02	3.97e-01	4.13e-01	3.5e-15	1.3	2.7e-02	4.8	8.18	842 ±	137
2655-01C	†	775	3.12e+01	4.01e-01	9.25e-02	8.7e-15	1.3	2.9e-02	12.4	24.48	529 ±	83
2655-01D	†	900	2.88e+01	3.58e-01	8.11e-02	6.0e-15	1.4	1.8e-02	16.7	35.64	656 ±	100
2655-01E		1000	2.53e+01	4.09e-01	7.51e-02	5.2e-15	1.2	2.2e-02	12.5	45.28	432 ±	46
2655-01F		1100	1.12e+01	3.98e-01	2.85e-02	1.0e-14	1.3	2.9e-02	25.1	64.78	385 ±	13
2655-01G		1250	7.65e+00	1.49e+00	1.72e-02	1.9e-14	0.3	2.7e-02	34.9	99.57	365 ±	7
2655-01H	†	1400	6.60e+01	1.14e+01	2.09e-01	3.9e-16	0.0	5.5e-02	7.8	100.29	705 ±	233
2655-01I	†	1750	-9.10e+02	0.00e+00	-2.88e+00	-2.1e-17	- -	4.8e-01	6.4	100.25	-8021 ±	32702
2655-01J	†	1750	-1.28e+01	0.00e+00	-3.74e-02	-1.4e-16	- -	5.6e-02	13.9	100.00	-243 ±	222
total gas age					n=10	5.4e-14					520 ±	140*
plateau age			MSWD=1.8		n=3		steps E-G			63.92	370 ±	20*
isochron age			MSWD=1.0		n=10		$^{40}Ar/^{36}Ar$ = 306.0 ± 2.1				342 ±	18*
E93010: west of Abbott Peak, 108.6 mg whole rock						**J=0.000075951±0.0000002**			**Disc.=1.00750±0.0023**			
2656-01A	†	550	5.61e+01	2.43e-01	1.63e-01	2.6e-15	2.1	3.4e-02	14.3	4.16	1099 ±	91
2656-01B		650	8.32e+00	1.66e-01	1.53e-02	1.2e-14	3.1	1.8e-02	45.6	23.91	520 ±	8
2656-01C		775	8.94e+00	1.67e-01	1.72e-02	1.4e-14	3.1	3.4e-02	43.0	45.86	527 ±	12
2656-01D		900	9.29e+00	1.99e-01	1.80e-02	9.8e-15	2.6	4.6e-02	42.8	61.76	545 ±	12
2656-01E		1000	9.17e+00	2.36e-01	1.70e-02	6.5e-15	2.2	3.7e-02	45.3	72.26	569 ±	10
2656-01F		1100	7.72e+00	4.31e-01	1.32e-02	4.6e-15	1.2	4.2e-03	49.6	79.66	525 ±	9
2656-01G		1250	9.07e+00	8.94e-01	1.79e-02	1.2e-14	0.6	2.4e-02	42.1	98.37	524 ±	8
2656-01H	†	1400	2.95e+01	2.49e+00	8.53e-02	1.6e-15	0.2	-5.1e-03	15.2	100.92	617 ±	39
2656-01I	†	1750	-1.18e+02	0.00e+00	-4.08e-01	-6.9e-17	- -	5.5e-01	-2.0	100.81	319 ±	1452
2656-01J	†	1750	5.35e+00	0.00e+00	3.99e-03	-5.0e-16	- -	9.6e-02	77.5	100.00	568 ±	60
total gas age					n=10	6.2e-14					559 ±	24*
plateau age			MSWD=3.8**		n=6		steps B-G			94.21	533 ±	18*
isochron age			MSWD=3.8**		n=10		$^{40}Ar/^{36}Ar$ = 306.3 ± 4.1				508 ±	20*
E93008: Crash Nunatak, 104.8 mg whole rock						**J=0.000076158±0.0000002**			**Disc.=1.00750±0.0023**			
2657-01A		550	6.89e+01	1.50e-01	2.18e-01	4.1e-15	3.4	1.4e-02	6.4	15.35	604 ±	100
2657-01B		650	6.50e+01	8.24e-01	2.10e-01	3.1e-15	0.6	5.4e-02	4.4	26.73	397 ±	95
2657-01C		775	5.09e+01	9.89e-01	1.60e-01	7.3e-15	0.5	2.8e-02	6.9	53.76	483 ±	53
2657-01D		900	7.01e+01	9.35e-01	2.23e-01	5.1e-15	0.5	1.8e-02	6.3	72.69	607 ±	77
2657-01E	†	1000	2.30e+02	1.46e+00	7.48e-01	2.0e-15	0.3	5.5e-02	4.1	79.93	1288 ±	248
2657-01F	†	1100	3.37e+02	1.84e+00	1.11e+00	1.9e-15	0.3	7.7e-02	2.9	87.11	1358 ±	365
2657-01G	†	1250	7.31e+02	1.15e+01	2.36e+00	1.7e-15	0.0	1.7e-01	4.7	93.47	4702 ±	837
2657-01H	†	1400	1.06e+03	1.55e+01	3.42e+00	1.4e-15	0.0	2.1e-01	4.4	98.82	6508 ±	1380
2657-01I	†	1750	2.02e+02	7.55e+00	6.72e-01	2.1e-16	0.1	1.9e-02	1.8	99.59	512 ±	381
2657-01J	†	1750	6.62e+01	6.12e+00	2.00e-01	1.1e-16	0.1	-1.6e-03	11.1	100.00	1015 ±	303
total gas age					n=10	2.7e-14					1200 ±	400*
plateau age			MSWD=1.4		n=4		steps A-D			72.69	520 ±	120*
isochron age			MSWD=1.1		n=10		$^{40}Ar/^{36}Ar$ = 306.6 ± 1.5				220 ±	96*

$^{40}Ar/^{39}Ar$ Analytical Data from: "$^{40}Ar/^{39}Ar$ Dating of the Eruptive History of Mount Erebus, Antarctica: Volcano Evolution"

Lab#		Temp (°C)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$	$^{39}Ar_K$ (moles)	K/Ca	Cl/K	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (ka)	Err (1σ)
E93032: Cape Barne tephrite, 103.7 mg whole rock					**J=0.000075978±0.0000002**			**Disc.=1.00750±0.0023**				
2658-01A		550	2.16e+01	7.91e-01	4.61e-02	2.3e-15	0.6	8.4e-02	37.0	7.02	1096	± 119
2658-01B		650	1.31e+01	7.11e-01	1.18e-02	5.2e-15	0.7	6.4e-02	73.7	22.64	1322	± 41
2658-01C		775	1.28e+01	6.43e-01	1.03e-02	1.2e-14	0.8	7.6e-02	76.3	59.24	1338	± 22
2658-01D		900	1.53e+01	8.19e-01	1.75e-02	7.6e-15	0.6	6.4e-02	66.6	82.04	1401	± 33
2658-01E		1000	2.20e+01	1.85e+00	4.48e-02	2.0e-15	0.3	5.4e-02	40.4	88.09	1219	± 79
2658-01F		1100	2.38e+01	3.77e+00	5.13e-02	1.2e-15	0.1	4.0e-02	37.5	91.72	1227	± 60
2658-01G		1250	4.08e+01	1.28e+01	1.11e-01	2.3e-15	0.0	1.3e-01	22.2	98.61	1253	± 48
2658-01H	†	1400	8.20e+01	1.85e+01	2.41e-01	2.1e-16	0.0	1.4e-01	14.8	99.23	1685	± 363
2658-01I	†	1750	6.38e+01	8.24e+00	1.81e-01	1.8e-16	0.1	2.6e-02	16.9	99.76	1483	± 771
2658-01J	†	1750	5.51e+01	6.64e+00	1.66e-01	7.9e-17	0.1	1.6e-03	11.9	100.00	903	± 437
total gas age				n=10		3.3e-14					1320	± 100*
plateau age			MSWD=2.7**	n=7		steps A-G				98.61	1330	± 60*
isochron age			MSWD=2.3**	n=10		$^{40}Ar/^{36}Ar$ = 288.9 ± 3.3					1355	± 36*

Isotopic ratios corrected for blank, radioactive decay, and mass discrimination, not corrected for interferring reactions.

Individual analyses show analytical error only; plateau and total gas age errors include error in J and irradiation parameters.

Analyses in italics are excluded from final age calculations.

Flux Monitor (Fish Canyon sanidine) = 27.84 Ma.

Disc. = Mass Discrimination (1 a.m.u.)

Correction Factors: $(^{40}Ar/^{39}Ar)_{Ca} = 0.022$; $(^{36}Ar/^{37}Ar)_{Ca} = 0.00026$; and $(^{39}Ar/^{37}Ar)_{Ca} = 0.00070$

$K/Ca = 0.510 * (^{39}Ar/^{37}Ar_{Ca})$; $Cl/K = 0.277 * (^{39}Ar/^{38}Ar_{Cl})$

Plateau (weighted mean) age calculated by weighting each age analysis by the inverse of the variance.

Plateau (weighted mean) error calculated using the method of Taylor (1982).

Plateau ages are weighted by the inverse of the variance whereas total gas ages are weighted by ^{39}Ar.

Errors are given at 1s and include the uncertainty in J-values (±0.25%).

Ages are calculated using the decay constants recommended by Steiger and Jäger (1977).

n= number of heating steps

†=analyses excluded from plateau weighted mean age.

ø=analyses excluded from inverse isochron age.

K/Ca = molar ratio calculated from reactor produced $^{39}Ar_K$ and $^{37}Ar_{Ca}$.

Cl/K = molar ratio calculated from reactor produced $^{38}Ar_{Cl}$ and $^{39}Ar_K$

* 2σ error

** MSWD outside of 95% confidence interval, uncertainty increased by multiplying by the square root of the MSWD.

Names, identification numbers and respective locations for all Mt. Erebus $^{40}Ar/^{39}Ar$ samples in this study.

Sample Name	Sample #	Latitude	Longitude	Source
Lower Hut Flow	E87034	77° 31.0' S	167° 06' E	Map
Three Sister's Cones	E80020	77° 34' S	166° 58' E	Gazetteer
Hooper's Shoulder Cones	E81001	77° 32' S	166° 53' E	Gazetteer
Cape Evans	E83400	77° 38.5' S	166° 25.1' E	Map
Nausea Knob	E87035	77° 31.0' S	167° 06' E	Map
William's Cliff	E93020	77° 34.8' S	166° 48.1' E	GPS
Cape Royds	E83448	77° 33.4' S	166° 10.0' E	Map
Northeast Flow	E86026	77° 31.0' S	167° 06' E	Map
Caldera Rim #1	E93013	77° 30.8' S	167° 06' E	Map
Cape Barne anorthoclase tephriphonolite	E83433	77° 34.9' S	166° 15.3' E	Map
SE of Hooper's Shoulder	E93021	77° 32.4' S	166° 51.3' E	GPS
NW of Hooper's Shoulder	E93011	77° 31.0' S	166° 48.0' E	GPS
Bomb Peak	E82405	77° 30.8' S	167° 28.6' E	Gazetteer
Aurora Cliffs	E83454	77° 39.0' S	167° 28.0' E	Map
Between William's Cliff and Turks Head	E93019	77° 36.7' S	166° 46.1' E	GPS
Turks Head tephriphonolite	AW82015	77° 40' S	166° 46' E	Gazetteer
Between Abbott's Peak and E93011	E93024	77° 28.6' S	166° 53.7' E	GPS
NE of Abbott's Peak	E93023	77° 25.8' S	167° 01.4' E	GPS
Tryggve Point dike	E77012	77° 39' S	166° 42' E	Gazetteer
Turks Head tephrite	AW82038	77° 40' S	166° 46' E	Gazetteer
SW of Abbott's Peak	E83453	77° 28.3' S	166° 49.5' E	Map
West of Abbott's Peak	E93010	77° 27.1' S	166° 48.8' E	GPS
Crash Nunatak	E93008	77° 26.7' S	167 ° 33.6' E	GPS
Inaccessible Island	E83407	77° 39' S	166° 21'E	Gazetteer
Abbott's Peak	E81002	77° 26' S	167° 00' E	Gazetteer
Fang Ridge #1	E93005	77° 29' S	167° 12' E	Gazetteer
Fang Ridge #2	E93007	77° 29' S	167° 12' E	Gazetteer
Fang Ridge #3	E93012	77° 29' S	167° 12' E	Gazetteer
Cape Barne tephrite	E83432/E93032	77° 34.9' S	166° 15.3' E	Map

Map: USGS 1:250,000 Map of Ross Island **Gazetter:** Gazetter of the Antarctic (1989); NSF
GPS: Navy VXE-6 helicopters