

Relative Abundances		36Ar [fA]	%1σ	37Ar [fA]	%1σ	38Ar [fA]	%1σ	39Ar [fA]	%1σ	40Ar [fA]	%1σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	40Ar(r) (%)	39Ar(k) (%)	K/Ca ± 2σ
23F04031	0.7 %	0.549964	0.339	1.4679	2.103	0.142665	7.051	2.28238	0.378	170.1014	0.151	2.63943 ± 0.55843	7.88 ± 1.66	3.54	0.27	0.668 ± 0.029
23F04033	0.9 %	0.905748	0.268	3.1627	0.945	0.219202	4.894	4.32680	0.223	284.1036	0.090	3.22243 ± 0.37881	9.62 ± 1.13	4.91	0.51	0.588 ± 0.011
23F04034	1.2 %	0.747665	0.301	2.8677	1.219	0.193137	5.412	3.69985	0.259	237.3286	0.108	3.87640 ± 0.40897	11.56 ± 1.22	6.04	0.44	0.554 ± 0.014
23F04035	1.8 %	2.606271	0.211	20.8517	0.272	0.665390	1.581	16.32578	0.081	849.5255	0.032	4.47942 ± 0.22677	13.35 ± 0.67	8.60	1.93	0.336 ± 0.002
23F04037	2.3 %	2.583319	0.210	37.3556	0.242	0.712611	1.422	21.18940	0.068	872.3545	0.031	4.91748 ± 0.17256	14.65 ± 0.51	11.93	2.51	0.244 ± 0.001
23F04038	2.8 %	2.095100	0.216	55.5325	0.234	0.669475	1.573	24.84168	0.065	747.7244	0.036	5.10674 ± 0.12283	15.21 ± 0.36	16.94	2.94	0.192 ± 0.001
23F04039	3.4 %	1.799517	0.218	82.5660	0.230	0.694355	1.468	31.54992	0.057	701.6338	0.038	5.42955 ± 0.08404	16.17 ± 0.25	24.37	3.73	0.164 ± 0.001
23F04041	4.0 %	1.463182	0.232	137.5457	0.227	0.801049	1.314	46.43230	0.053	685.0701	0.038	5.59500 ± 0.04944	16.66 ± 0.15	37.85	5.49	0.145 ± 0.001
23F04042	4.7 %	1.169053	0.251	169.1843	0.227	0.827435	1.242	53.85297	0.052	637.5307	0.041	5.62142 ± 0.03697	16.74 ± 0.11	47.39	6.36	0.137 ± 0.001
23F04043	5.3 %	0.870289	0.265	182.9307	0.227	0.796681	1.366	55.14901	0.052	555.0786	0.047	5.63267 ± 0.02896	16.77 ± 0.09	55.84	6.51	0.129 ± 0.001
23F04045	6.0 %	0.659342	0.310	205.8319	0.226	0.816382	1.281	58.87688	0.051	515.1916	0.050	5.70118 ± 0.02421	16.98 ± 0.07	65.01	6.95	0.123 ± 0.001
23F04046	6.8 %	0.531939	0.338	220.1595	0.226	0.805382	1.314	60.00493	0.051	479.9644	0.054	5.66087 ± 0.02137	16.86 ± 0.06	70.61	7.09	0.117 ± 0.001
23F04047	7.5 %	0.466734	0.384	236.7674	0.226	0.825229	1.306	61.18549	0.051	465.3927	0.056	5.65453 ± 0.02079	16.84 ± 0.06	74.16	7.22	0.111 ± 0.001
23F04049	8.3 %	0.379725	0.428	224.5796	0.226	0.716195	1.480	55.16501	0.052	406.1828	0.063	5.65064 ± 0.02119	16.83 ± 0.06	76.54	6.51	0.105 ± 0.000
23F04050	9.1 %	0.305017	0.474	223.6526	0.226	0.667985	1.548	51.68692	0.053	362.6657	0.071	5.61892 ± 0.02069	16.73 ± 0.06	79.86	6.10	0.099 ± 0.000
23F04051	10.1 %	0.267518	0.537	231.0929	0.226	0.647172	1.590	50.00978	0.052	341.0373	0.075	5.61129 ± 0.02116	16.71 ± 0.06	82.04	5.90	0.093 ± 0.000
23F04053	10.5 %	0.159936	0.809	141.1483	0.227	0.377725	2.861	29.65346	0.058	202.1593	0.127	5.60779 ± 0.03221	16.70 ± 0.10	82.01	3.50	0.090 ± 0.000
23F04054	11.0 %	0.141692	0.892	131.7088	0.227	0.356340	2.948	26.79762	0.061	180.4521	0.142	5.56887 ± 0.03498	16.59 ± 0.10	82.44	3.16	0.087 ± 0.000
23F04055	11.5 %	0.110655	1.098	115.8798	0.228	0.292772	3.733	22.58529	0.067	148.5367	0.172	5.54566 ± 0.04029	16.52 ± 0.12	84.04	2.66	0.084 ± 0.000
23F04057	12.0 %	0.089629	1.327	104.4331	0.228	0.242964	4.236	19.54599	0.073	126.3699	0.203	5.54580 ± 0.04577	16.52 ± 0.14	85.48	2.31	0.080 ± 0.000
23F04058	12.5 %	0.071276	1.641	83.1883	0.230	0.214124	5.015	15.86950	0.076	102.3463	0.250	5.54942 ± 0.05550	16.53 ± 0.16	85.76	1.87	0.082 ± 0.000
23F04059	13.0 %	0.075574	1.589	74.8892	0.231	0.188379	5.610	14.16519	0.087	94.3853	0.271	5.51509 ± 0.06322	16.43 ± 0.19	82.49	1.67	0.081 ± 0.000
23F04061	14.3 %	0.085926	1.411	110.7129	0.229	0.238358	4.637	18.01752	0.075	113.9131	0.225	5.41517 ± 0.05019	16.13 ± 0.15	85.31	2.12	0.070 ± 0.000
23F04062	15.5 %	0.083247	1.436	109.0767	0.228	0.226553	4.562	16.79723	0.075	105.4517	0.243	5.34400 ± 0.05326	15.92 ± 0.16	84.77	1.98	0.066 ± 0.000
23F04063	16.5 %	0.081432	1.470	100.7020	0.229	0.201508	5.378	14.59733	0.085	93.2447	0.274	5.30187 ± 0.06130	15.79 ± 0.18	82.63	1.72	0.062 ± 0.000
23F04065	17.6 %	0.068590	1.733	103.7731	0.228	0.175872	5.670	14.20651	0.083	87.6163	0.292	5.33982 ± 0.06264	15.91 ± 0.19	86.18	1.67	0.059 ± 0.000
23F04066	18.6 %	0.063598	1.794	93.3637	0.229	0.172516	6.016	12.29492	0.091	76.5182	0.334	5.31735 ± 0.07042	15.84 ± 0.21	85.02	1.45	0.056 ± 0.000
23F04067	19.8 %	0.058069	2.026	88.9106	0.230	0.155397	6.920	11.77061	0.101	72.5184	0.353	5.32286 ± 0.07506	15.86 ± 0.22	85.98	1.39	0.057 ± 0.000
23F04069	21.2 %	0.083595	1.399	83.5855	0.230	0.137934	7.242	11.08458	0.098	76.7805	0.333	5.30884 ± 0.07932	15.81 ± 0.24	76.27	1.31	0.057 ± 0.000
23F04070	22.0 %	0.039648	2.853	61.3881	0.233	0.098453	10.501	8.67787	0.118	53.7649	0.475	5.42648 ± 0.09897	16.16 ± 0.29	87.19	1.02	0.061 ± 0.000
23F04071	22.9 %	0.035600	3.185	56.2266	0.234	0.097234	10.382	7.69524	0.129	47.6648	0.537	5.42739 ± 0.11176	16.17 ± 0.33	87.21	0.91	0.059 ± 0.000
23F04073	23.7 %	0.030069	3.772	49.8189	0.237	0.069710	14.577	6.70130	0.150	41.0061	0.624	5.40465 ± 0.12834	16.10 ± 0.38	87.90	0.79	0.058 ± 0.000

Σ	18.678919	0.071	3544.3546	0.047	13.443486	0.441	847.03926	0.012	9933.6137	0.015						
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Information on Analysis and Constants Used in Calculations	
Project = <b>MASS (22-34)</b> Sample = <b>LMF-19-80</b> Material = <b>Groundmass</b> Location = <b>Leslie Gulch</b> Region = <b>Vale</b> Analyst = <b>Dan Miggins</b> Irradiation = <b>22-OSU-05 (5D20-22)</b> Position = <b>X: 999   Y: 999   Z/H: 34.83193 mm</b> FCT-NM Age = <b>28.201 ± 0.023 Ma</b> FCT-NM Reference = <b>Kuiper et al (2008)</b> FCT-NM 40Ar/39Ar Ratio = <b>9.49923 ± 0.01026</b> FCT-NM J-value = <b>0.00163439 ± 0.00000177</b> Air Shot 40Ar/36Ar = <b>303.1280 ± 0.4698</b> Air Shot MDF = <b>0.99622775 ± 0.00046021 (LIN)</b> Experiment Type = <b>Incremental Heating</b> Extraction Method = <b>Bulk Laser Heating</b> Heating = <b>50 sec</b> Isolation = <b>6.00 min</b> Instrument = <b>ARGUS-VI-F</b> Preferred Age = <b>Mini Plateau</b> Age Classification = <b>Crystallization Age</b> IGSN = <b>Undefined</b> Rock Class = <b>Igneous&gt;Volcanic&gt;Mafic</b> Lithology = <b>Basaltic Lava</b> Lat-Lon = <b>Undefined - Undefined</b>	Age Equations = <b>Min et al. (2000)</b> Negative Intensities = <b>Allowed</b> Collector Calibrations = <b>36Ar</b> Decay 40K(total) = <b>5.463 ± 0.107 E-10 1/a</b> Decay 40K(EC,β <sup>+</sup> ) = <b>0.580 ± 0.014 E-10 1/a</b> Decay 40K(β <sup>-</sup> ) = <b>4.884 ± 0.099 E-10 1/a</b> Decay 39Ar = <b>2.940 ± 0.016 E-07 1/h</b> Decay 37Ar = <b>8.230 ± 0.012 E-04 1/h</b> Decay 36Cl = <b>2.257 ± 0.015 E-06 1/a</b> Production 39/37(ca) = <b>0.0006425 ± 0.0000059</b> Production 38/37(ca) = <b>0.0001800 ± 0.0000173</b> Production 36/37(ca) = <b>0.0002703 ± 0.0000005</b> Production 40/39(k) = <b>0.000607 ± 0.000059</b> Production 38/39(k) = <b>0.012077 ± 0.000011</b> Production 36/38(cl) = <b>262.80 ± 1.71</b> Scaling Ratio K/Ca = <b>0.430</b> Abundance Ratio 40K/K = <b>1.1700 ± 0.0100 E-04</b> Atomic Weight K = <b>39.0983 ± 0.0001 g</b> Trapped 40/36(a) = <b>298.56 ± 0.31</b> Trapped 38/36(a) = <b>0.1885 ± 0.0003</b> Standard MDF 40/36(a) = <b>298.56 ± 0.31</b> Standard MDF Reference = <b>Lee et al 2006</b>

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau <b>Error Mean</b>		5.65547 ± 0.02028 ± 0.36%	<b>16.84 ± 0.07</b> ± <b>0.42%</b> Full External Error ± 0.88 Analytical Error ± 0.06	4.43 0%	46.14 7	0.124 ± 0.011
Total Fusion Age		5.49546 ± 0.01079 ± 0.20%	<b>16.37 ± 0.05</b> ± <b>0.29%</b> Full External Error ± 0.85 Analytical Error ± 0.03		32	0.102 ± 0.000
Normal Isochron <b>Error Chron</b>	296.20 ± 3.04 ± 1.03%	5.67900 ± 0.03629 ± 0.64%	<b>16.91 ± 0.11</b> ± <b>0.67%</b> Full External Error ± 0.88 Analytical Error ± 0.11	3.92 0%	46.14 7	0.124 ± 0.011
Inverse Isochron <b>Error Chron</b>	296.16 ± 3.07 ± 1.04%	5.67976 ± 0.03670 ± 0.65%	<b>16.91 ± 0.11</b> ± <b>0.68%</b> Full External Error ± 0.88 Analytical Error ± 0.11	3.99 0%	46.14 7	0.124 ± 0.011

Inverse Isochron	39(k)/40(a+r) ± 2σ	36(a)/40(a+r) ± 2σ
23F04031	0.7 %	0.0134123 ± 0.0001091
23F04033	0.9 %	0.0152226 ± 0.0000732
23F04034	1.2 %	0.0155819 ± 0.0000874
23F04035	1.8 %	0.0192020 ± 0.0000333
23F04037	2.3 %	0.0242627 ± 0.0000362
23F04038	2.8 %	0.0331760 ± 0.0000493
23F04039	3.4 %	0.0448920 ± 0.0000619
23F04041	4.0 %	0.0676512 ± 0.0000891
23F04042	4.7 %	0.0843050 ± 0.0001122
23F04043	5.3 %	0.0991477 ± 0.0001390
23F04045	6.0 %	0.1140327 ± 0.0001643
23F04046	6.8 %	0.1247343 ± 0.0001854
23F04047	7.5 %	0.1311542 ± 0.0001978
23F04049	8.3 %	0.1354692 ± 0.0002224
23F04050	9.1 %	0.1421355 ± 0.0002522
23F04051	10.1 %	0.1462178 ± 0.0002688
23F04053	10.5 %	0.1462480 ± 0.0004085
23F04054	11.0 %	0.1480470 ± 0.0004576
23F04055	11.5 %	0.1515646 ± 0.0005613
23F04057	12.0 %	0.1541563 ± 0.0006638
23F04058	12.5 %	0.1545491 ± 0.0008089
23F04059	13.0 %	0.1495822 ± 0.0008519
23F04061	14.3 %	0.1575596 ± 0.0007467
23F04062	15.5 %	0.1586391 ± 0.0008064
23F04063	16.5 %	0.1558696 ± 0.0008963
23F04065	17.6 %	0.1613994 ± 0.0009804
23F04066	18.6 %	0.1599113 ± 0.0011083
23F04067	19.8 %	0.1615402 ± 0.0011856
23F04069	21.2 %	0.1436803 ± 0.0009985
23F04070	22.0 %	0.1606862 ± 0.0015749
23F04071	22.9 %	0.1607027 ± 0.0017757
23F04073	23.7 %	0.1626576 ± 0.0020875

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)
Inverse Isochron <b>Error Chron</b>	296.16 ± 3.07 ± 1.04%	5.67976 ± 0.03670 ± 0.65%	<b>16.91 ± 0.11</b> ± <b>0.68%</b> Full External Error ± 0.88 Analytical Error ± 0.11
Statistics	2σ Confidence Limit Error Magnification Number of Data Points Spreading Factor	2.26 1.9972 7 38.5%	Convergence Number of Iterations Calculated Line Weighted

r.i.
0.1499
0.1201
0.1304
0.0544
0.0608
0.0782
0.0932
0.0928
0.0972
0.1095
0.1024
0.1012
0.0907
0.0950
0.0946
0.0871
0.1072
0.1084
0.1039
0.0976
0.0991
0.1179
0.0977
0.1034
0.1175
0.0950
0.1076
0.0974
0.1638
0.0935
0.0934
0.0883

MSWD
3.99
0%
119103
2
York-2

Incremental Heating		36Ar(a) [fA]	37Ar(ca) [fA]	38Ar(cl) [fA]	39Ar(k) [fA]	40Ar(r) [fA]	Age ± 2σ (Ma)	40Ar(r) (%)	39Ar(k) (%)	K/Ca ± 2σ
23F04031	0.7 %	0.549566	1.4679	0.0112548	2.28144	6.0217	7.88 ± 1.66	3.54	0.27	0.668 ± 0.029
23F04033	0.9 %	0.904893	3.1627	0.0000000	4.32476	13.9362	9.62 ± 1.13	4.91	0.51	0.588 ± 0.011
23F04034	1.2 %	0.746890	2.8677	0.0071716	3.69800	14.3350	11.56 ± 1.22	6.04	0.44	0.554 ± 0.014
23F04035	1.8 %	2.600635	20.8517	0.0000000	16.31238	73.0700	13.35 ± 0.67	8.60	1.93	0.336 ± 0.002
23F04037	2.3 %	2.573222	37.3556	0.0000000	21.16540	104.0805	14.65 ± 0.51	11.93	2.51	0.244 ± 0.001
23F04038	2.8 %	2.080089	55.5325	0.0000000	24.80600	126.6779	15.21 ± 0.36	16.94	2.94	0.192 ± 0.001
23F04039	3.4 %	1.777200	82.5660	0.0000000	31.49688	171.0140	16.17 ± 0.25	24.37	3.73	0.164 ± 0.001
23F04041	4.0 %	✓ 1.426003	137.5457	0.0000000	46.34393	259.2945	16.66 ± 0.15	37.85	5.49	0.145 ± 0.001
23F04042	4.7 %	✓ 1.123322	169.1843	0.0000000	53.74427	302.1189	16.74 ± 0.11	47.39	6.36	0.137 ± 0.001
23F04043	5.3 %	✓ 0.820843	182.9307	0.0000000	55.03148	309.9744	16.77 ± 0.09	55.84	6.51	0.129 ± 0.001
23F04045	6.0 %	✓ 0.603706	205.8319	0.0000000	58.74463	334.9135	16.98 ± 0.07	65.01	6.95	0.123 ± 0.001
23F04046	6.8 %	✓ 0.472430	220.1595	0.0000000	59.86348	338.8794	16.86 ± 0.06	70.61	7.09	0.117 ± 0.001
23F04047	7.5 %	✓ 0.402736	236.7674	0.0000000	61.03337	345.1147	16.84 ± 0.06	74.16	7.22	0.111 ± 0.001
23F04049	8.3 %	✓ 0.319021	224.5796	0.0000000	55.02072	310.9024	16.83 ± 0.06	76.54	6.51	0.105 ± 0.000
23F04050	9.1 %	0.244564	223.6526	0.0000000	51.54323	289.6174	16.73 ± 0.06	79.86	6.10	0.099 ± 0.000
23F04051	10.1 %	0.205053	231.0929	0.0000000	49.86131	279.7863	16.71 ± 0.06	82.04	5.90	0.093 ± 0.000
23F04053	10.5 %	0.121783	141.1483	0.0000000	29.56278	165.7817	16.70 ± 0.10	82.01	3.50	0.090 ± 0.000
23F04054	11.0 %	0.106091	131.7088	0.0000000	26.71300	148.7612	16.59 ± 0.10	82.44	3.16	0.087 ± 0.000
23F04055	11.5 %	0.079333	115.8798	0.0000000	22.51083	124.8375	16.52 ± 0.12	84.04	2.66	0.084 ± 0.000
23F04057	12.0 %	0.061401	104.4331	0.0000000	19.47889	108.0261	16.52 ± 0.14	85.48	2.31	0.080 ± 0.000
23F04058	12.5 %	0.048790	83.1883	0.0000000	15.81605	87.7699	16.53 ± 0.16	85.76	1.87	0.082 ± 0.000
23F04059	13.0 %	0.055331	74.8892	0.0000000	14.11708	77.8570	16.43 ± 0.19	82.49	1.67	0.081 ± 0.000
23F04061	14.3 %	0.056000	110.7129	0.0000000	17.94638	97.1828	16.13 ± 0.15	85.31	2.12	0.070 ± 0.000
23F04062	15.5 %	0.053764	109.0767	0.0000000	16.72714	89.3898	15.92 ± 0.16	84.77	1.98	0.066 ± 0.000
23F04063	16.5 %	0.054212	100.7020	0.0000000	14.53263	77.0502	15.79 ± 0.18	82.63	1.72	0.062 ± 0.000
23F04065	17.6 %	0.040540	103.7731	0.0000000	14.13983	75.5042	15.91 ± 0.19	86.18	1.67	0.059 ± 0.000
23F04066	18.6 %	0.038362	93.3637	0.0007180	12.23494	65.0574	15.84 ± 0.21	85.02	1.45	0.056 ± 0.000
23F04067	19.8 %	0.034037	88.9106	0.0000000	11.71348	62.3492	15.86 ± 0.22	85.98	1.39	0.057 ± 0.000
23F04069	21.2 %	0.061001	83.5855	0.0000000	11.03088	58.5612	15.81 ± 0.24	76.27	1.31	0.057 ± 0.000
23F04070	22.0 %	0.023055	61.3881	0.0000000	8.63843	46.8763	16.16 ± 0.29	87.19	1.02	0.061 ± 0.000
23F04071	22.9 %	0.020402	56.2266	0.0000000	7.65912	41.5691	16.17 ± 0.33	87.21	0.91	0.059 ± 0.000
23F04073	23.7 %	0.016602	49.8189	0.0000000	6.66930	36.0452	16.10 ± 0.38	87.90	0.79	0.058 ± 0.000

Σ 17.720878 3544.3546 0.0191444 844.76202 4642.3556

Information on Analysis
Project = <b>MASS (22-34)</b> Sample = <b>LMF-19-80</b> Material = <b>Groundmass</b> Location = <b>Leslie Gulch</b> Region = <b>Vale</b> Analyst = <b>Dan Miggins</b> Irradiation = <b>22-OSU-05 (5D20-22)</b> J = <b>0.00163439 ± 0.00000177</b> FCT-NM = <b>28.201 ± 0.023 Ma</b>

Results	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau Error Mean	5.65547 ± 0.02028 ± 0.36%	16.84 ± 0.07 ± 0.42%	4.43 0%	46.14 7	0.124 ± 0.011
		Full External Error ± 0.88 Analytical Error ± 0.06	2.15 2.1048	2σ Confidence Limit Error Magnification	
Total Fusion Age	5.49546 ± 0.01079 ± 0.20%	16.37 ± 0.05 ± 0.29%		32	0.102 ± 0.000
		Full External Error ± 0.85 Analytical Error ± 0.03	■ Defining a mini plateau at 46%		

Normal Isochron		39(k)/36(a) ± 2σ	40(a+r)/36(a) ± 2σ	r.i.
23F04031	0.7 %	4.15 ± 0.04	309.52 ± 2.30	0.6113
23F04033	0.9 %	4.78 ± 0.03	313.96 ± 1.78	0.7291
23F04034	1.2 %	4.95 ± 0.04	317.75 ± 2.03	0.7137
23F04035	1.8 %	6.27 ± 0.03	326.66 ± 1.40	0.9240
23F04037	2.3 %	8.23 ± 0.04	339.01 ± 1.44	0.9417
23F04038	2.8 %	11.93 ± 0.05	359.46 ± 1.58	0.9453
23F04039	3.4 %	17.72 ± 0.08	394.79 ± 1.77	0.9535
23F04041	4.0 %	✓ 32.50 ± 0.16	480.39 ± 2.32	0.9633
23F04042	4.7 %	✓ 47.84 ± 0.26	567.51 ± 3.01	0.9687
23F04043	5.3 %	✓ 67.04 ± 0.38	676.19 ± 3.86	0.9700
23F04045	6.0 %	✓ 97.31 ± 0.67	853.32 ± 5.85	0.9779
23F04046	6.8 %	✓ 126.71 ± 0.98	1015.87 ± 7.84	0.9814
23F04047	7.5 %	✓ 151.55 ± 1.36	1155.48 ± 10.41	0.9860
23F04049	8.3 %	✓ 172.47 ± 1.77	1273.11 ± 13.13	0.9873
23F04050	9.1 %	210.76 ± 2.52	1482.78 ± 17.77	0.9890
23F04051	10.1 %	243.16 ± 3.44	1663.02 ± 23.60	0.9916
23F04053	10.5 %	242.75 ± 5.18	1659.84 ± 35.63	0.9915
23F04054	11.0 %	251.79 ± 6.03	1700.76 ± 40.94	0.9917
23F04055	11.5 %	283.75 ± 8.72	1872.16 ± 57.87	0.9928
23F04057	12.0 %	317.24 ± 12.33	2057.91 ± 80.33	0.9939
23F04058	12.5 %	324.16 ± 15.57	2097.48 ± 101.25	0.9941
23F04059	13.0 %	255.14 ± 11.09	1705.67 ± 74.68	0.9915
23F04061	14.3 %	320.47 ± 13.92	2033.96 ± 88.77	0.9941
23F04062	15.5 %	311.12 ± 13.88	1961.20 ± 87.96	0.9936
23F04063	16.5 %	268.07 ± 11.87	1719.82 ± 76.70	0.9917
23F04065	17.6 %	348.79 ± 20.51	2161.03 ± 127.67	0.9947
23F04066	18.6 %	318.93 ± 19.02	1994.44 ± 119.62	0.9933
23F04067	19.8 %	344.14 ± 23.84	2130.38 ± 148.27	0.9944
23F04069	21.2 %	180.83 ± 6.95	1258.56 ± 49.05	0.9840
23F04070	22.0 %	374.69 ± 36.81	2331.79 ± 230.07	0.9951
23F04071	22.9 %	375.42 ± 41.77	2336.09 ± 261.03	0.9951
23F04073	23.7 %	401.71 ± 54.92	2469.64 ± 338.98	0.9956

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Normal Isochron Error Chron	296.20 ± 3.04 ± 1.03%	5.67900 ± 0.03629 ± 0.64%	16.91 ± 0.11 ± 0.67%	3.92 0%
			Full External Error ± 0.88 Analytical Error ± 0.11	
Statistics	2σ Confidence Limit Error Magnification Number of Data Points	2.26 1.9792 7	Convergence Number of Iterations Calculated Line	0.000056415380 23 Weighted York-2

Degassing Patterns		36Ar(a) [fA]	%1σ	36Ar(c) [fA]	%1σ	36Ar(ca) [fA]	%1σ	36Ar(cl) [fA]	%1σ	37Ar(ca) [fA]	%1σ	38Ar(a) [fA]	%1σ	38Ar(c) [fA]	%1σ	38Ar(k) [fA]	%1σ	38Ar(ca) [fA]	%1σ	38Ar(cl) [fA]	%1σ	39Ar(k) [fA]	%1σ	39Ar(ca) [fA]	%1σ	40Ar(r) [fA]	%1σ	40Ar(a) [fA]	%1σ	40Ar(c) [fA]	%1σ	40Ar(k) [fA]	%1σ
23F04031	0.7 %	0.549566	0.34	0.0000000	0.00	0.0003968	2.11	0.0000011	89.46	1.4679	2.10	0.1035931	0.38	0.0000000	0.00	0.027553	0.39	0.0002642	9.86	0.0112548	89.47	2.28144	0.38	0.0009431	2.30	6.0217	10.57	164.0783	0.36	0.0000000	0.00	0.0013848	9.66
23F04033	0.9 %	0.904893	0.27	0.0000000	0.00	0.0008549	0.96	0.0000000	0.00	3.1627	0.94	0.1705723	0.31	0.0000000	0.00	0.052230	0.24	0.0005693	9.68	0.0000000	0.00	4.32476	0.22	0.0020320	1.32	13.9362	5.87	270.1648	0.29	0.0000000	0.00	0.0026251	9.65
23F04034	1.2 %	0.746890	0.30	0.0000000	0.00	0.0007751	1.23	0.0000007	145.95	2.8677	1.22	0.1407887	0.34	0.0000000	0.00	0.044661	0.27	0.0005162	9.71	0.0071716	145.95	3.69800	0.26	0.0018425	1.53	14.3350	5.27	222.9914	0.32	0.0000000	0.00	0.0022447	9.65
23F04035	1.8 %	2.600635	0.21	0.0000000	0.00	0.0056362	0.32	0.0000000	0.00	20.8517	0.27	0.4902197	0.26	0.0000000	0.00	0.197005	0.12	0.0037533	9.63	0.0000000	0.00	16.31238	0.08	0.0133972	0.96	73.0700	2.53	776.4456	0.24	0.0000000	0.00	0.0099016	9.65
23F04037	2.3 %	2.573222	0.21	0.0000000	0.00	0.0100972	0.30	0.0000000	0.00	37.3556	0.24	0.4850524	0.26	0.0000000	0.00	0.255615	0.11	0.0067240	9.63	0.0000000	0.00	21.16540	0.07	0.0240010	0.95	104.0805	1.75	768.2612	0.23	0.0000000	0.00	0.0128474	9.65
23F04038	2.8 %	2.080089	0.22	0.0000000	0.00	0.0150104	0.29	0.0000000	0.00	55.5325	0.23	0.3920968	0.27	0.0000000	0.00	0.299582	0.11	0.0099959	9.63	0.0000000	0.00	24.80600	0.07	0.0356797	0.95	126.6779	1.20	621.0314	0.24	0.0000000	0.00	0.0150572	9.65
23F04039	3.4 %	1.777200	0.22	0.0000000	0.00	0.0223176	0.29	0.0000000	0.00	82.5660	0.23	0.3350021	0.27	0.0000000	0.00	0.380388	0.11	0.0148619	9.63	0.0000000	0.00	31.49688	0.06	0.0530486	0.95	171.0140	0.77	530.6007	0.24	0.0000000	0.00	0.0191186	9.65
23F04041	4.0 %	1.426003	0.24	0.0000000	0.00	0.0371786	0.28	0.0000000	0.00	137.5457	0.23	0.2688016	0.29	0.0000000	0.00	0.559696	0.10	0.0247582	9.63	0.0000000	0.00	46.34393	0.05	0.0883731	0.95	259.2945	0.44	425.7475	0.26	0.0000000	0.00	0.0281308	9.65
23F04042	4.7 %	1.123322	0.26	0.0000000	0.00	0.0457305	0.28	0.0000000	0.00	169.1843	0.23	0.2117463	0.31	0.0000000	0.00	0.649070	0.10	0.0304532	9.63	0.0000000	0.00	53.74427	0.05	0.1087009	0.95	302.1189	0.32	335.3792	0.28	0.0000000	0.00	0.0326228	9.65
23F04043	5.3 %	0.820843	0.28	0.0000000	0.00	0.0494462	0.28	0.0000000	0.00	182.9307	0.23	0.1547289	0.32	0.0000000	0.00	0.664615	0.10	0.0329275	9.63	0.0000000	0.00	55.03148	0.05	0.1175330	0.95	309.9744	0.25	245.0708	0.30	0.0000000	0.00	0.0334041	9.65
23F04045	6.0 %	0.603706	0.34	0.0000000	0.00	0.0556364	0.28	0.0000000	0.00	205.8319	0.23	0.1137986	0.37	0.0000000	0.00	0.709459	0.10	0.0370497	9.63	0.0000000	0.00	58.74463	0.05	0.1322470	0.95	334.9135	0.21	180.2425	0.35	0.0000000	0.00	0.0356580	9.65
23F04046	6.8 %	0.472430	0.38	0.0000000	0.00	0.0595091	0.28	0.0000000	0.00	220.1595	0.23	0.0890530	0.41	0.0000000	0.00	0.722971	0.10	0.0396287	9.63	0.0000000	0.00	59.86348	0.05	0.1414525	0.95	338.8794	0.18	141.0487	0.40	0.0000000	0.00	0.0363371	9.65
23F04047	7.5 %	0.402736	0.45	0.0000000	0.00	0.0639982	0.28	0.0000000	0.00	236.7674	0.23	0.0759158	0.47	0.0000000	0.00	0.737100	0.10	0.0426181	9.63	0.0000000	0.00	61.03337	0.05	0.1521231	0.95	345.1147	0.18	120.2409	0.46	0.0000000	0.00	0.0370473	9.65
23F04049	8.3 %	0.319021	0.51	0.0000000	0.00	0.0607039	0.28	0.0000000	0.00	224.5796	0.23	0.0601355	0.54	0.0000000	0.00	0.664485	0.10	0.0404243	9.63	0.0000000	0.00	55.02072	0.05	0.1442924	0.95	310.9024	0.18	95.2469	0.52	0.0000000	0.00	0.0333976	9.65
23F04050	9.1 %	0.244564	0.59	0.0000000	0.00	0.0604533	0.28	0.0000000	0.00	223.6526	0.23	0.0461003	0.62	0.0000000	0.00	0.622488	0.10	0.0402575	9.63	0.0000000	0.00	51.54323	0.05	0.1436968	0.95	289.6174	0.18	73.0169	0.60	0.0000000	0.00	0.0312867	9.65
23F04051	10.1 %	0.205053	0.71	0.0000000	0.00	0.0624644	0.28	0.0000000	0.00	231.0929	0.23	0.0386526	0.72	0.0000000	0.00	0.602175	0.10	0.0415967	9.63	0.0000000	0.00	49.86131	0.05	0.1484772	0.95	279.7863	0.18	61.2207	0.71	0.0000000	0.00	0.0302658	9.65
23F04053	10.5 %	0.121783	1.07	0.0000000	0.00	0.0381524	0.28	0.0000000	0.00	141.1483	0.23	0.0229562	1.08	0.0000000	0.00	0.357030	0.11	0.0254067	9.63	0.0000000	0.00	29.56278	0.06	0.0906878	0.95	165.7817	0.28	36.3596	1.07	0.0000000	0.00	0.0179446	9.65
23F04054	11.0 %	0.106091	1.20	0.0000000	0.00	0.0356009	0.28	0.0000000	0.00	131.7088	0.23	0.0199982	1.21	0.0000000	0.00	0.322613	0.11	0.0237076	9.63	0.0000000	0.00	26.71300	0.06	0.0846229	0.95	148.7612	0.31	31.6747	1.20	0.0000000	0.00	0.0162148	9.65
23F04055	11.5 %	0.079333	1.54	0.0000000	0.00	0.0313223	0.28	0.0000000	0.00	115.8798	0.23	0.0149542	1.54	0.0000000	0.00	0.271863	0.11	0.0208584	9.63	0.0000000	0.00	22.51083	0.07	0.0744528	0.95	124.8375	0.36	23.6856	1.54	0.0000000	0.00	0.0136641	9.65
23F04057	12.0 %	0.061401	1.94	0.0000000	0.00	0.0282283	0.28	0.0000000	0.00	104.4331	0.23	0.0115741	1.95	0.0000000	0.00	0.235247	0.12	0.0187980	9.63	0.0000000	0.00	19.47889	0.07	0.0670983	0.95	108.0261	0.41	18.3319	1.94	0.0000000	0.00	0.0118237	9.65
23F04058	12.5 %	0.048790	2.40	0.0000000	0.00	0.0224858	0.29	0.0000000	0.00	83.1883	0.23	0.0091970	2.41	0.0000000	0.00	0.191010	0.12	0.0149739	9.63	0.0000000	0.00	15.81605	0.08	0.0534485	0.95	87.7699	0.49	14.5668	2.40	0.0000000	0.00	0.0096003	9.65
23F04059	13.0 %	0.055331	2.17	0.0000000	0.00	0.0202426	0.29	0.0000000	0.00	74.8892	0.23	0.0104299	2.18	0.0000000	0.00	0.170492	0.13	0.0134801	9.63	0.0000000	0.00	14.11708	0.09	0.0481163	0.95	77.8570	0.57	16.5197	2.17	0.0000000	0.00	0.0085691	9.65
23F04061	14.3 %	0.056000	2.17	0.0000000	0.00	0.0299257	0.29	0.0000000	0.00	110.7129	0.23	0.0105560	2.18	0.0000000	0.00	0.216738	0.12	0.0199283	9.63	0.0000000	0.00	17.94638	0.07	0.0711331	0.95	97.1828	0.46	16.7194	2.17	0.0000000	0.00	0.0108935	9.65
23F04062	15.5 %	0.053764	2.23	0.0000000	0.00	0.0294834	0.28	0.0000000	0.00	109.0767	0.23	0.0101345	2.24	0.0000000	0.00	0.202014	0.12	0.0196338	9.63	0.0000000	0.00	16.72714	0.08	0.0700818	0.95	89.3898	0.49	16.0517	2.23	0.0000000	0.00	0.0101534	9.65
23F04063	16.5 %	0.054212	2.21	0.0000000	0.00	0.0272198	0.29	0.0000000	0.00	100.7020	0.23	0.0102190	2.22	0.0000000	0.00	0.175511	0.12	0.0181264	9.63	0.0000000	0.00	14.53263	0.09	0.0647011	0.95	77.0502	0.57	16.1857	2.22	0.0000000	0.00	0.0088213	9.65
23F04065	17.6 %	0.040540	2.94	0.0000000	0.00	0.0280499	0.28	0.0000000	0.00	103.7731	0.23	0.0076417	2.94	0.0000000	0.00	0.170767	0.12	0.0186792	9.63	0.0000000	0.00	14.13983	0.08	0.0666742	0.95	75.5042	0.58	12.1035	2.94	0.0000000	0.00	0.0085829	9.65
23F04066	18.6 %	0.038362	2.98	0.0000000	0.00	0.0252362	0.29	0.0000001	#####	93.3637	0.23	0.0072312	2.98	0.0000000	0.00	0.147761	0.13	0.0168055	9.63	0.0007180	#####	12.23494	0.09	0.0599862	0.95	65.0574	0.66	11.4534	2.98	0.0000000	0.00	0.0074266	9.65
23F04067	19.8 %	0.034037	3.46	0.0000000	0.00	0.0240325	0.29	0.0000000	0.00	88.9106	0.23	0.0064159	3.47	0.0000000	0.00	0.141464	0.14	0.0160039	9.63	0.0000000	0.00	11.71348	0.10	0.0571251	0.95	62.3492	0.70	10.1620	3.46	0.0000000	0.00	0.0071101	9.65
23F04069	21.2 %	0.061001	1.92	0.0000000	0.00	0.0225932	0.29	0.0000000	0.00	83.5855	0.23	0.0114988	1.93	0.0000000	0.00	0.133220	0.13	0.0150454	9.63	0.0000000	0.00	11.03088	0.10	0.0537037	0.95	58.5612	0.74	18.2126	1.92	0.0000000	0.00	0.0066957	9.65
23F04070	22.0 %	0.023055	4.91	0.0000000	0.00	0.0165932	0.29	0.0000000	0.00	61.3881	0.23	0.0043459	4.91	0.0000000	0.00	0.104326	0.15	0.0110499	9.63	0.0000000	0.00	8.63843	0.12	0.0394419	0.95	46.8763	0.90	6.8833	4.91	0.0000000	0.00	0.0052435	9.65
23F04071	22.9 %	0.020402	5.56	0.0000000	0.00	0.0151980	0.29	0.0000000	0.00	56.2266	0.23	0.0038457	5.56	0.0000000	0.00	0.092499	0.16	0.0101208	9.63	0.0000000	0.00	7.65912	0.13	0.0361256	0.95	41.5691	1.02						

Additional Parameters		40Ar/39Ar	1σ	37Ar/39Ar	1σ	36Ar/39Ar	1σ	Time (days)	37Ar (decay)	39Ar (decay)	40Ar (moles)
23F04031	0.7 %	74.527993	0.302954	0.643147	0.013740	0.240960	0.001223	62.321	3.432981	1.00044071	6.022E-12
23F04033	0.9 %	65.661423	0.157746	0.730947	0.007095	0.209334	0.000729	62.340	3.434253	1.00044085	1.006E-11
23F04034	1.2 %	64.145527	0.179845	0.775092	0.009660	0.202080	0.000802	62.349	3.434865	1.00044091	8.401E-12
23F04035	1.8 %	52.035835	0.045041	1.277225	0.003625	0.159641	0.000360	62.358	3.435478	1.00044097	3.007E-11
23F04037	2.3 %	41.169380	0.030659	1.762939	0.004427	0.121916	0.000269	62.376	3.436703	1.00044110	3.088E-11
23F04038	2.8 %	30.099593	0.022325	2.235459	0.005429	0.084338	0.000190	62.385	3.437316	1.00044117	2.647E-11
23F04039	3.4 %	22.238843	0.015301	2.616995	0.006199	0.057037	0.000128	62.394	3.437929	1.00044123	2.484E-11
23F04041	4.0 %	✓14.754170	0.009696	2.962284	0.006909	0.031512	0.000075	62.412	3.439203	1.00044136	2.425E-11
23F04042	4.7 %	✓11.838357	0.007868	3.141597	0.007308	0.021708	0.000056	62.422	3.439816	1.00044143	2.257E-11
23F04043	5.3 %	✓10.065069	0.007043	3.317026	0.007713	0.015781	0.000043	62.431	3.440429	1.00044149	1.965E-11
23F04045	6.0 %	✓8.750322	0.006295	3.495972	0.008112	0.011199	0.000035	62.449	3.441657	1.00044162	1.824E-11
23F04046	6.8 %	✓7.998749	0.005936	3.669024	0.008508	0.008865	0.000030	62.458	3.442270	1.00044168	1.699E-11
23F04047	7.5 %	✓7.606259	0.005725	3.869666	0.008967	0.007628	0.000030	62.467	3.442932	1.00044175	1.647E-11
23F04049	8.3 %	✓7.363051	0.006034	4.071052	0.009443	0.006883	0.000030	62.485	3.444160	1.00044188	1.438E-11
23F04050	9.1 %	7.016585	0.006215	4.327063	0.010053	0.005901	0.000028	62.494	3.444774	1.00044194	1.284E-11
23F04051	10.1 %	6.819412	0.006258	4.620953	0.010726	0.005349	0.000029	62.503	3.445388	1.00044200	1.207E-11
23F04053	10.5 %	6.817393	0.009514	4.759926	0.011158	0.005393	0.000044	62.522	3.446617	1.00044213	7.156E-12
23F04054	11.0 %	6.733887	0.010399	4.914945	0.011566	0.005287	0.000047	62.531	3.447232	1.00044220	6.388E-12
23F04055	11.5 %	6.576704	0.012169	5.130766	0.012191	0.004899	0.000054	62.540	3.447894	1.00044226	5.258E-12
23F04057	12.0 %	6.465258	0.013911	5.342943	0.012803	0.004586	0.000061	62.558	3.449124	1.00044239	4.473E-12
23F04058	12.5 %	6.449248	0.016870	5.242022	0.012694	0.004491	0.000074	62.567	3.449739	1.00044246	3.623E-12
23F04059	13.0 %	6.663182	0.018965	5.286846	0.013055	0.005335	0.000085	62.576	3.450354	1.00044252	3.341E-12
23F04061	14.3 %	6.322351	0.014972	6.144739	0.014784	0.004769	0.000067	62.594	3.451585	1.00044265	4.033E-12
23F04062	15.5 %	6.277922	0.015947	6.493735	0.015609	0.004956	0.000071	62.604	3.452248	1.00044271	3.733E-12
23F04063	16.5 %	6.387788	0.018354	6.898661	0.016847	0.005579	0.000082	62.613	3.452863	1.00044278	3.301E-12
23F04065	17.6 %	6.167335	0.018720	7.304617	0.017758	0.004828	0.000084	62.631	3.454095	1.00044291	3.102E-12
23F04066	18.6 %	6.223560	0.021557	7.593681	0.018725	0.005173	0.000093	62.640	3.454711	1.00044297	2.709E-12
23F04067	19.8 %	6.160969	0.022597	7.553613	0.018953	0.004933	0.000100	62.649	3.455327	1.00044303	2.567E-12
23F04069	21.2 %	6.926779	0.024056	7.540702	0.018848	0.007542	0.000106	62.668	3.456607	1.00044317	2.718E-12
23F04070	22.0 %	6.195627	0.030350	7.074101	0.018477	0.004569	0.000130	62.677	3.457223	1.00044323	1.903E-12
23F04071	22.9 %	6.194064	0.034207	7.306665	0.019514	0.004626	0.000147	62.686	3.457840	1.00044329	1.687E-12
23F04073	23.7 %	6.119123	0.039250	7.434212	0.020837	0.004487	0.000169	62.704	3.459073	1.00044342	1.452E-12

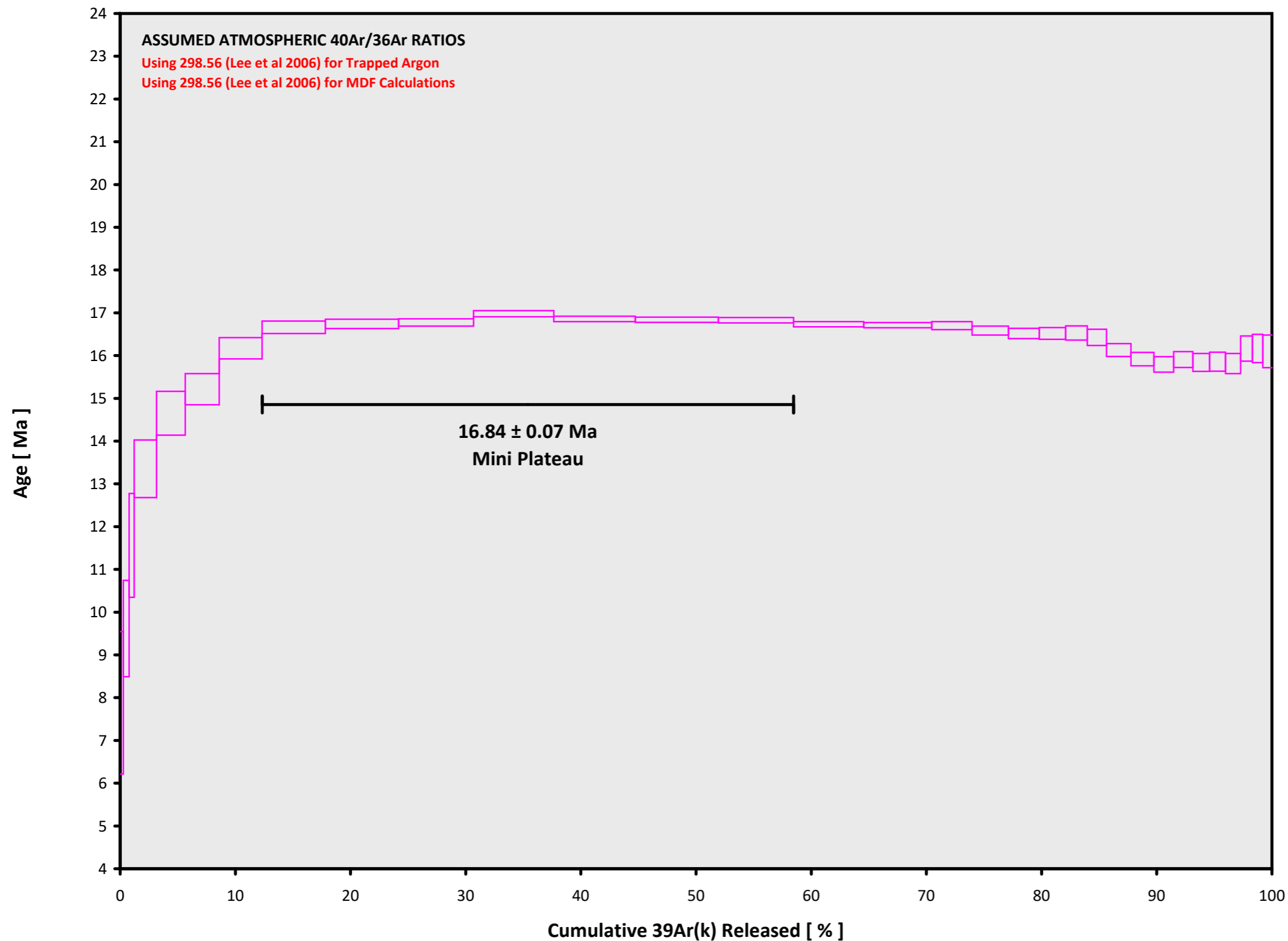
Procedure Blanks		36Ar ± 1σ (SE) [fA]	37Ar ± 1σ (SE) [fA]	38Ar ± 1σ (SE) [fA]	39Ar ± 1σ (SE) [fA]	40Ar ± 1σ (SE) [fA]
23F04031	0.7 %	0.0271830 ± 0.0010180	0.0175022 ± 0.0063838	0.01011149 ± 0.0079614	0.0081504 ± 0.0062912	7.7317545 ± 0.2550829
23F04033	0.9 %	0.0269688 ± 0.0010180	0.0209093 ± 0.0063838	0.0001737 ± 0.0079614	0.0166816 ± 0.0062912	7.7785246 ± 0.2550829
23F04034	1.2 %	0.0269150 ± 0.0010180	0.0222722 ± 0.0063838	0.0038236 ± 0.0079614	0.0196381 ± 0.0062912	7.7960182 ± 0.2550829
23F04035	1.8 %	0.0268873 ± 0.0010180	0.0234777 ± 0.0063838	0.0067308 ± 0.0079614	0.0219415 ± 0.0062912	7.8105158 ± 0.2550829
23F04037	2.3 %	0.0268943 ± 0.0010180	0.0254777 ± 0.0063838	0.0106078 ± 0.0079614	0.0248513 ± 0.0062912	7.8312852 ± 0.2550829
23F04038	2.8 %	0.0269216 ± 0.0010180	0.0263007 ± 0.0063838	0.0117151 ± 0.0079614	0.0255816 ± 0.0062912	7.8379240 ± 0.2550829
23F04039	3.4 %	0.0269602 ± 0.0010180	0.0270227 ± 0.0063838	0.0123550 ± 0.0079614	0.0259063 ± 0.0062912	7.8423009 ± 0.2550829
23F04041	4.0 %	0.0270630 ± 0.0010180	0.0282492 ± 0.0063838	0.0124533 ± 0.0079614	0.0255189 ± 0.0062912	7.8448931 ± 0.2550829
23F04042	4.7 %	0.0271176 ± 0.0010180	0.0287293 ± 0.0063838	0.0120264 ± 0.0079614	0.0249257 ± 0.0062912	7.8433486 ± 0.2550829
23F04043	5.3 %	0.0271720 ± 0.0010180	0.0291497 ± 0.0063838	0.0113630 ± 0.0079614	0.0241311 ± 0.0062912	7.8401979 ± 0.2550829
23F04045	6.0 %	0.0272718 ± 0.0010180	0.0298403 ± 0.0063838	0.0095196 ± 0.0079614	0.0221057 ± 0.0062912	7.8296584 ± 0.2550829
23F04046	6.8 %	0.0273135 ± 0.0010180	0.0301225 ± 0.0063838	0.0084286 ± 0.0079614	0.0209512 ± 0.0062912	7.8225459 ± 0.2550829
23F04047	7.5 %	0.0273498 ± 0.0010180	0.0303867 ± 0.0063838	0.0071892 ± 0.0079614	0.0196547 ± 0.0062912	7.8137114 ± 0.2550829
23F04049	8.3 %	0.0273883 ± 0.0010180	0.0307816 ± 0.0063838	0.0048606 ± 0.0079614	0.0172263 ± 0.0062912	7.7945846 ± 0.2550829
23F04050	9.1 %	0.0273915 ± 0.0010180	0.0309364 ± 0.0063838	0.0037489 ± 0.0079614	0.0160558 ± 0.0062912	7.7839303 ± 0.2550829
23F04051	10.1 %	0.0273832 ± 0.0010180	0.0310636 ± 0.0063838	0.0027102 ± 0.0079614	0.0149445 ± 0.0062912	7.7726930 ± 0.2550829
23F04053	10.5 %	0.0273304 ± 0.0010180	0.0312321 ± 0.0063838	0.0009472 ± 0.0079614	0.0129725 ± 0.0062912	7.7488689 ± 0.2550829
23F04054	11.0 %	0.0272859 ± 0.0010180	0.0312692 ± 0.0063838	0.0002631 ± 0.0079614	0.0121410 ± 0.0062912	7.7364677 ± 0.2550829
23F04055	11.5 %	0.0272248 ± 0.0010180	0.0312691 ± 0.0063838	0.0003017 ± 0.0079614	0.0113772 ± 0.0062912	7.7228778 ± 0.2550829
23F04057	12.0 %	0.0270777 ± 0.0010180	0.0311379 ± 0.0063838	0.0008288 ± 0.0079614	0.0103477 ± 0.0062912	7.6973167 ± 0.2550829
23F04058	12.5 %	0.0269895 ± 0.0010180	0.0309960 ± 0.0063838	0.0008219 ± 0.0079614	0.0100281 ± 0.0062912	7.6845214 ± 0.2550829
23F04059	13.0 %	0.0268930 ± 0.0010180	0.0307934 ± 0.0063838	0.0006293 ± 0.0079614	0.0098371 ± 0.0062912	7.6718001 ± 0.2550829
23F04061	14.3 %	0.0266815 ± 0.0010180	0.0301701 ± 0.0063838	0.0003110 ± 0.0079614	0.0098193 ± 0.0062912	7.6467972 ± 0.2550829
23F04062	15.5 %	0.0265613 ± 0.0010180	0.0296912 ± 0.0063838	0.0011142 ± 0.0079614	0.0099902 ± 0.0062912	7.6336835 ± 0.2550829
23F04063	16.5 %	0.0264487 ± 0.0010180	0.0291405 ± 0.0063838	0.0020347 ± 0.0079614	0.0102440 ± 0.0062912	7.6217821 ± 0.2550829
23F04065	17.6 %	0.0262304 ± 0.0010180	0.0276800 ± 0.0063838	0.0043282 ± 0.0079614	0.0109552 ± 0.0062912	7.5989050 ± 0.2550829
23F04066	18.6 %	0.0261302 ± 0.0010180	0.0267417 ± 0.0063838	0.0056681 ± 0.0079614	0.0113706 ± 0.0062912	7.5879782 ± 0.2550829
23F04067	19.8 %	0.0260399 ± 0.0010180	0.0256439 ± 0.0063838	0.0071098 ± 0.0079614	0.0117929 ± 0.0062912	7.5774160 ± 0.2550829
23F04069	21.2 %	0.0258986 ± 0.0010180	0.0227805 ± 0.0063838	0.0103209 ± 0.0079614	0.0125654 ± 0.0062912	7.5566828 ± 0.2550829
23F04070	22.0 %	0.0258604 ± 0.0010180	0.0210827 ± 0.0063838	0.0119114 ± 0.0079614	0.0128182 ± 0.0062912	7.5472836 ± 0.2550829
23F04071	22.9 %	0.0258469 ± 0.0010180	0.0191509 ± 0.0063838	0.0134865 ± 0.0079614	0.0129438 ± 0.0062912	7.5382564 ± 0.2550829
23F04073	23.7 %	0.0259112 ± 0.0010180	0.0145005 ± 0.0063838	0.0164421 ± 0.0079614	0.0126495 ± 0.0062912	7.5212630 ± 0.2550829

Intercept Values		36Ar ± 1σ (SE) [fA]	r2	Regression (type,n)	37Ar ± 1σ (SE) [fA]	r2	Regression (type,n)	38Ar ± 1σ (SE) [fA]	r2	Regression (type,n)	39Ar ± 1σ (SE) [fA]	r2	Regression (type,n)	40Ar ± 1σ (SE) [fA]	r2	Regression (type,n)
23F04031	0.7 %	0.5556344 ± 0.0010991	0.9719	EXP 150 of 150	0.440260 ± 0.006112	0.2704	EXP 150 of 150	0.1314740 ± 0.0060212	0.0467	EXP 150 of 150	2.2809382 ± 0.0057427	0.9189	EXP 148 of 150	177.833147 ± 0.021707	0.9998	EXP 150 of 150
23F04033	0.9 %	0.8972876 ± 0.0013280	0.9856	EXP 150 of 150	0.931419 ± 0.005391	0.7183	EXP 148 of 150	0.2177221 ± 0.0070658	0.0983	EXP 150 of 150	4.3252888 ± 0.0069605	0.9742	EXP 150 of 150	291.882168 ± 0.029913	0.9999	EXP 150 of 150
23F04034	1.2 %	0.7453351 ± 0.0013542	0.9776	EXP 150 of 150	0.847724 ± 0.007555	0.5505	EXP 150 of 150	0.1955039 ± 0.0066479	0.1471	EXP 150 of 150	3.7039296 ± 0.0069535	0.9623	EXP 150 of 150	245.124572 ± 0.029214	0.9998	EXP 150 of 150
23F04035	1.8 %	2.5312129 ± 0.0022366	0.9953	EXP 150 of 150	6.024406 ± 0.006620	0.9900	EXP 150 of 150	0.6671021 ± 0.0067226	0.5804	EXP 150 of 150	16.2790838 ± 0.0086963	0.9978	EXP 150 of 150	857.335986 ± 0.087421	0.9999	EXP 150 of 150
23F04037	2.3 %	2.5091659 ± 0.0021481	0.9955	EXP 150 of 150	10.772256 ± 0.007090	0.9965	EXP 149 of 150	0.7178438 ± 0.0061057	0.6637	EXP 150 of 150	21.1251682 ± 0.0083513	0.9989	EXP 150 of 150	880.185828 ± 0.091303	0.9999	EXP 149 of 150
23F04038	2.8 %	2.0400704 ± 0.0019359	0.9946	EXP 150 of 150	15.999522 ± 0.008060	0.9979	EXP 150 of 150	0.6761403 ± 0.0067445	0.5557	EXP 150 of 150	24.7628165 ± 0.0094144	0.9990	EXP 150 of 150	755.562284 ± 0.080702	0.9999	EXP 149 of 150
23F04039	3.4 %	1.7560885 ± 0.0016433	0.9945	EXP 149 of 150	23.771833 ± 0.009065	0.9988	EXP 150 of 150	0.7014721 ± 0.0062078	0.6196	EXP 150 of 150	31.4431837 ± 0.0087274	0.9995	EXP 150 of 150	709.476122 ± 0.074721	0.9999	EXP 150 of 150
23F04041	4.0 %	1.4330117 ± 0.0016471	0.9913	EXP 149 of 150	39.569788 ± 0.010122	0.9995	EXP 149 of 150	0.8074599 ± 0.0067268	0.6730	EXP 150 of 150	46.2625990 ± 0.0106897	0.9996	EXP 150 of 150	692.915020 ± 0.063902	0.9999	EXP 147 of 150
23F04042	4.7 %	1.1504425 ± 0.0015920	0.9873	EXP 149 of 150	48.657057 ± 0.011775	0.9995	EXP 150 of 150	0.8332199 ± 0.0063270	0.7126	EXP 149 of 150	53.6514660 ± 0.0112331	0.9997	EXP 148 of 150	645.374005 ± 0.067999	0.9999	EXP 150 of 150
23F04043	5.3 %	0.8634192 ± 0.0012022	0.9867	EXP 150 of 150	52.599203 ± 0.012402	0.9996	EXP 150 of 150	0.8020344 ± 0.0072654	0.6255	EXP 150 of 150	54.9412613 ± 0.0116195	0.9997	EXP 150 of 150	562.918794 ± 0.049494	0.9999	EXP 149 of 150
23F04045	6.0 %	0.6608238 ± 0.0011885	0.9738	EXP 150 of 150	59.160078 ± 0.011897	0.9997	EXP 150 of 150	0.8197438 ± 0.0066135	0.7097	EXP 150 of 150	58.6514235 ± 0.0118128	0.9997	EXP 147 of 150	523.021303 ± 0.045188	0.9999	EXP 150 of 150
23F04046	6.8 %	0.5384454 ± 0.0010188	0.9697	EXP 148 of 150	63.265038 ± 0.012202	0.9997	EXP 150 of 150	0.8077355 ± 0.0068089	0.6747	EXP 150 of 150	59.7735711 ± 0.0114788	0.9998	EXP 150 of 150	487.786925 ± 0.042227	0.9999	EXP 150 of 150
23F04047	7.5 %	0.4758277 ± 0.0011081	0.9529	EXP 150 of 150	68.022411 ± 0.012331	0.9997	EXP 150 of 150	0.8235140 ± 0.0070457	0.6843	EXP 149 of 150	60.9478674 ± 0.0114153	0.9998	EXP 150 of 150	473.206396 ± 0.041070	0.9999	EXP 150 of 150
23F04049	8.3 %	0.3922601 ± 0.0009661	0.9460	EXP 150 of 150	64.499873 ± 0.011019	0.9998	EXP 148 of 150	0.7156529 ± 0.0068426	0.5830	EXP 149 of 150	54.9502669 ± 0.0114888	0.9997	EXP 150 of 150	413.977343 ± 0.035586	0.9999	EXP 148 of 150
23F04050	9.1 %	0.3204776 ± 0.0007691	0.9416	EXP 149 of 150	64.222454 ± 0.011619	0.9997	EXP 150 of 150	0.6666953 ± 0.0064473	0.6127	EXP 150 of 150	51.4856324 ± 0.0120271	0.9996	EXP 150 of 150	370.449601 ± 0.031836	0.9999	EXP 149 of 150
23F04051	10.1 %	0.2844369 ± 0.0007977	0.9095	EXP 150 of 150	66.346229 ± 0.011633	0.9998	EXP 149 of 150	0.6450007 ± 0.0063691	0.5484	EXP 150 of 150	49.8144309 ± 0.0106702	0.9997	EXP 150 of 150	348.809995 ± 0.031200	0.9999	EXP 150 of 150
23F04053	10.5 %	0.1810102 ± 0.0006528	0.8197	EXP 149 of 150	40.521166 ± 0.009482	0.9996	EXP 149 of 150	0.3758232 ± 0.0071793	0.1879	EXP 150 of 150	29.5417358 ± 0.0084705	0.9995	EXP 147 of 150	209.908178 ± 0.024842	0.9998	EXP 150 of 150
23F04054	11.0 %	0.1634359 ± 0.0006117	0.7830	EXP 150 of 150	37.806644 ± 0.009497	0.9995	EXP 147 of 150	0.3539154 ± 0.0067230	0.2880	EXP 150 of 150	26.6970668 ± 0.0084900	0.9993	EXP 150 of 150	188.188586 ± 0.023714	0.9998	EXP 149 of 150
23F04055	11.5 %	0.1335515 ± 0.0005364	0.7454	EXP 150 of 150	33.260355 ± 0.009459	0.9993	EXP 150 of 150	0.2902617 ± 0.0073632	0.1397	EXP 150 of 150	22.5016829 ± 0.0089965	0.9989	EXP 148 of 150	156.259613 ± 0.022884	0.9997	EXP 150 of 150
23F04057	12.0 %	0.1132012 ± 0.0004936	0.5996	EXP 150 of 150	29.967146 ± 0.008949	0.9993	EXP 150 of 150	0.2403024 ± 0.0063957	0.0575	EXP 149 of 150	19.4741360 ± 0.0089381	0.9986	EXP 150 of 150	134.067178 ± 0.020811	0.9996	EXP 146 of 150
23F04058	12.5 %	0.0954775 ± 0.0004584	0.4518	EXP 150 of 150	23.872869 ± 0.008521	0.9990	EXP 150 of 150	0.2116869 ± 0.0070811	0.1094	EXP 150 of 150	15.8127895 ± 0.0073074	0.9985	EXP 150 of 150	110.030868 ± 0.021833	0.9992	EXP 150 of 150
23F04059	13.0 %	0.0995107 ± 0.0005255	0.4662	EXP 150 of 150	21.490315 ± 0.008970	0.9985	EXP 150 of 150	0.1863283 ± 0.0068263	0.1062	EXP 150 of 150	14.1154579 ± 0.0082494	0.9976	EXP 150 of 150	102.057065 ± 0.019714	0.9992	EXP 150 of 150
23F04061	14.3 %	0.1092463 ± 0.0005452	0.5472	EXP 149 of 150	31.743679 ± 0.010493	0.9991	EXP 148 of 150	0.2368715 ± 0.0075416	0.1087	EXP 150 of 150	17.9515593 ± 0.0084222	0.9985	EXP 150 of 150	121.559874 ± 0.022134	0.9994	EXP 150 of 150
23F04062	15.5 %	0.1065522 ± 0.0005111	0.5723	EXP 150 of 150	31.268513 ± 0.009479	0.9992	EXP 150 of 150	0.2259583 ± 0.0064649	0.1444	EXP 150 of 150	16.7365693 ± 0.0075971	0.9986	EXP 150 of 150	113.085358 ± 0.021291	0.9993	EXP 150 of 150
23F04063	16.5 %	0.1046956 ± 0.0005153	0.5638	EXP 150 of 150	28.864361 ± 0.009269	0.9992	EXP 150 of 150	0.2020228 ± 0.0072278	0.1325	EXP 149 of 150	14.5461792 ± 0.0083113	0.9978	EXP 150 of 150	100.866436 ± 0.019872	0.9992	EXP 146 of 150
23F04065	17.6 %	0.0921371 ± 0.0005036	0.3548	EXP 147 of 150	29.731680 ± 0.008748	0.9993	EXP 150 of 150	0.1788735 ± 0.0058768	0.0345	EXP 150 of 150	14.1577085 ± 0.0074961	0.9980	EXP 150 of 150	95.215184 ± 0.018823	0.9991	EXP 150 of 150
23F04066	18.6 %	0.0872408 ± 0.0003906	0.4980	EXP 150 of 150	26.746402 ± 0.009018	0.9991	EXP 150 of 150	0.1768829 ± 0.0065331	0.1032	EXP 148 of 150	12.2545812 ± 0.0071979	0.9976	EXP 149 of 150	84.106173 ± 0.019036	0.9987	EXP 149 of 150
23F04067	19.8 %	0.0818377 ± 0.0004799	0.3189	EXP 150 of 150	25.466337 ± 0.009279	0.9989	EXP 150 of 150	0.1613346 ± 0.0071056	0.0651	EXP 150 of 150	11.7328914 ± 0.0083795	0.9964	EXP 149 of 150	80.095767 ± 0.018837	0.9985	EXP 148 of 150
23F04069	21.2 %	0.1062234 ± 0.0004515	0.6515	EXP 150 of 150	23.930912 ± 0.008219	0.9990	EXP 149 of 150	0.1472145 ± 0.0059068	0.0496	EXP 150 of 150	11.0505241 ± 0.0072442	0.9970	EXP 149 of 150	84.337146 ± 0.018074	0.9989	EXP 150 of 150
23F04070	22.0 %	0.0639578 ± 0.0003738	0.0495	EXP 150 of 150	17.576915 ± 0.008055	0.9983	EXP 149 of 150	0.1096215 ± 0.0064726	0.0076	EXP 150 of 150	8.6541865 ± 0.0069439	0.9953	EXP 149 of 150	61.312135 ± 0.016862	0.9966	EXP 150 of 150
23F04071	22.9 %	0.0600541 ± 0.0003824	0.0023	EXP 149 of 150	16.096007 ± 0.007401	0.9983	EXP 150 of 150	0.1099868 ± 0.0060818	0.0572	EXP 150 of 150	7.6758181 ± 0.0067870	0.9944	EXP 146 of 150	55.203084 ± 0.020656	0.9918	EXP 150 of 150
23F04073	23.7 %	0.0548035 ± 0.0003848	0.0012	EXP 150 of 150	14.254140 ± 0.007876	0.9975	EXP 150 of 150	0.0856258 ± 0.0061897	0.0047	EXP 150 of 150	6.6857647 ± 0.0071692	0.9913	EXP 150 of 150	48.527370 ± 0.017983	0.9882	EXP 148 of 150

Sample Parameters		Sample	Material	Location	Standard Name	Standard (in Ma)	%1σ	Standard Reference	Standard 40Ar/39Ar	%1σ	J	%1σ	Air 40Ar/36Ar	%1σ	MDF (lin)	%1σ	Volume Ratio	Sensitivity (mol/volt)	Day	Month	Year	Hour	Min	Resist	Analyst	Project	Experiment	Nmb
23F04031	0.7 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	16	FEB	2023	23	12	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04033	0.9 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	16	FEB	2023	23	39	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04034	1.2 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	16	FEB	2023	23	52	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04035	1.8 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	0	5	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04037	2.3 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	0	31	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04038	2.8 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	0	44	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04039	3.4 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	0	57	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04041	4.0 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	1	24	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04042	4.7 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	1	37	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04043	5.3 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	1	50	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04045	6.0 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	2	16	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04046	6.8 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	2	29	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04047	7.5 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	2	43	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04049	8.3 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	3	9	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04050	9.1 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	3	22	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04051	10.1 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	3	35	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04053	10.5 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	4	1	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04054	11.0 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	4	14	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04055	11.5 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	4	28	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04057	12.0 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	4	54	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04058	12.5 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	5	7	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04059	13.0 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	5	20	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04061	14.3 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	5	46	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04062	15.5 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	6	0	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04063	16.5 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	6	13	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04065	17.6 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	6	39	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04066	18.6 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	6	52	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04067	19.8 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	7	5	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04069	21.2 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	7	32	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04070	22.0 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	7	45	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04071	22.9 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	7	58	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01
23F04073	23.7 %	LMF-19-80	Groundmass	Leslie Gulch	FCT-NM (5D20-22)	28.201	0.082	Kuiper et al (2008)	9.49923	0.108	0.00163439	0.108	303.128	0.155	0.9962277	0.046	1	3.54E-14	17	FEB	2023	8	24	1	Dan Miggins	Oregon\Mass (22-34)	23F04028	01

Irradiation Constants		40/36(a)		%1σ	40/36(c)		%1σ	38/36(a)		%1σ	38/36(c)		%1σ	39/37(ca)		%1σ	38/37(ca)		%1σ	36/37(ca)		%1σ	40/39(k)		%1σ	38/39(k)		%1σ	36/38(cl)		%1σ	K/Ca	%1σ	K/Cl	%1σ	Ca/Cl	%1σ	Irradiation	X-pos	Y-pos	Z/H-pos				
23F04031	0.7 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83	
23F04033	0.9 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04034	1.2 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04035	1.8 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04037	2.3 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04038	2.8 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04039	3.4 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04041	4.0 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04042	4.7 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04043	5.3 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04045	6.0 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04046	6.8 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04047	7.5 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04049	8.3 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04050	9.1 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04051	10.1 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04053	10.5 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04054	11.0 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04055	11.5 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04057	12.0 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04058	12.5 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04059	13.0 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04061	14.3 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04062	15.5 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04063	16.5 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04065	17.6 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04066	18.6 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04067	19.8 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04069	21.2 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04070	22.0 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018	9.63	0.00027	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0	0	0	0	0.43	0	0	0	0	0	0	0	0	0	0	22-OSU-05	999.00	999.00	34.83
23F04071	22.9 %	298.56	0.104	0.018	35	0.1885	0.159	1.493	3	0.000643	0.92	0.00018																																	

23F04028.AGE >>> LMF-19-80 >>> OREGON | MASS (22-34) PROJECT



Ar-Ages in Ma

WEIGHTED PLATEAU

16.84 ± 0.07

TOTAL FUSION

16.37 ± 0.05

NORMAL ISOCHRON

16.91 ± 0.11

INVERSE ISOCHRON

16.91 ± 0.11

MSWD (PROBABILITY)

4.43 (0%)

TRAPPED  $^{40}\text{Ar}/^{36}\text{Ar}$  RATIO

Standard  $^{40}/^{36} = 298.56 \pm 0.104\%$ SD

Sample Info

Groundmass

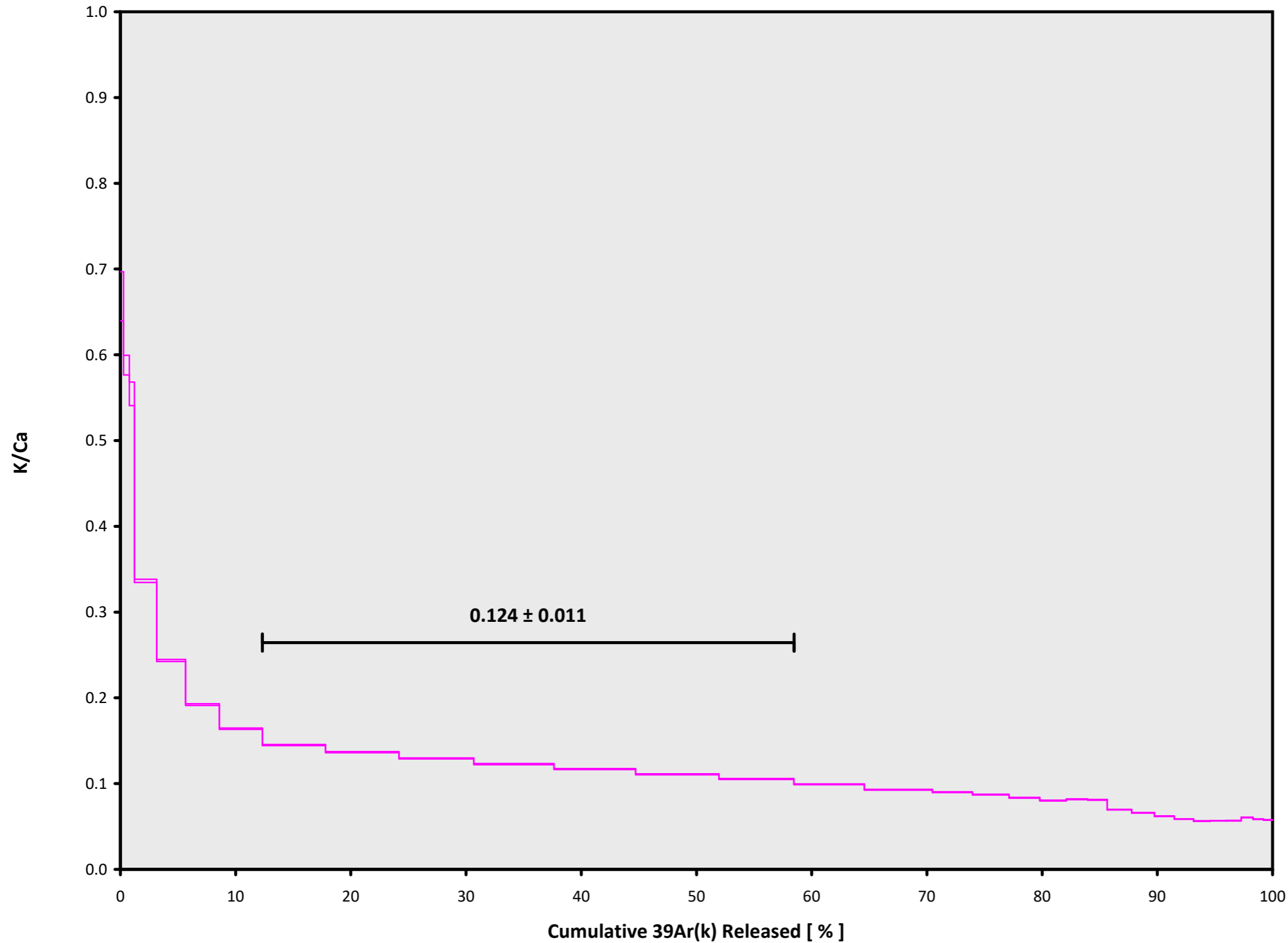
Leslie Gulch

Dan Miggins

IRR = 22-OSU-05 (5D20-22)

J = 0.00163439 ± 0.00000177

23F04028.AGE >>> LMF-19-80 >>> OREGON | MASS (22-34) PROJECT



### Ar-Ages in Ma

#### WEIGHTED PLATEAU

16.84 ± 0.07

#### TOTAL FUSION

16.37 ± 0.05

#### NORMAL ISOCHRON

16.91 ± 0.11

#### INVERSE ISOCHRON

16.91 ± 0.11

#### TRAPPED $^{40}\text{Ar}/^{36}\text{Ar}$ RATIO

Standard  $^{40}/^{36} = 298.56 \pm 0.104$   
%SD

### Sample Info

#### Groundmass

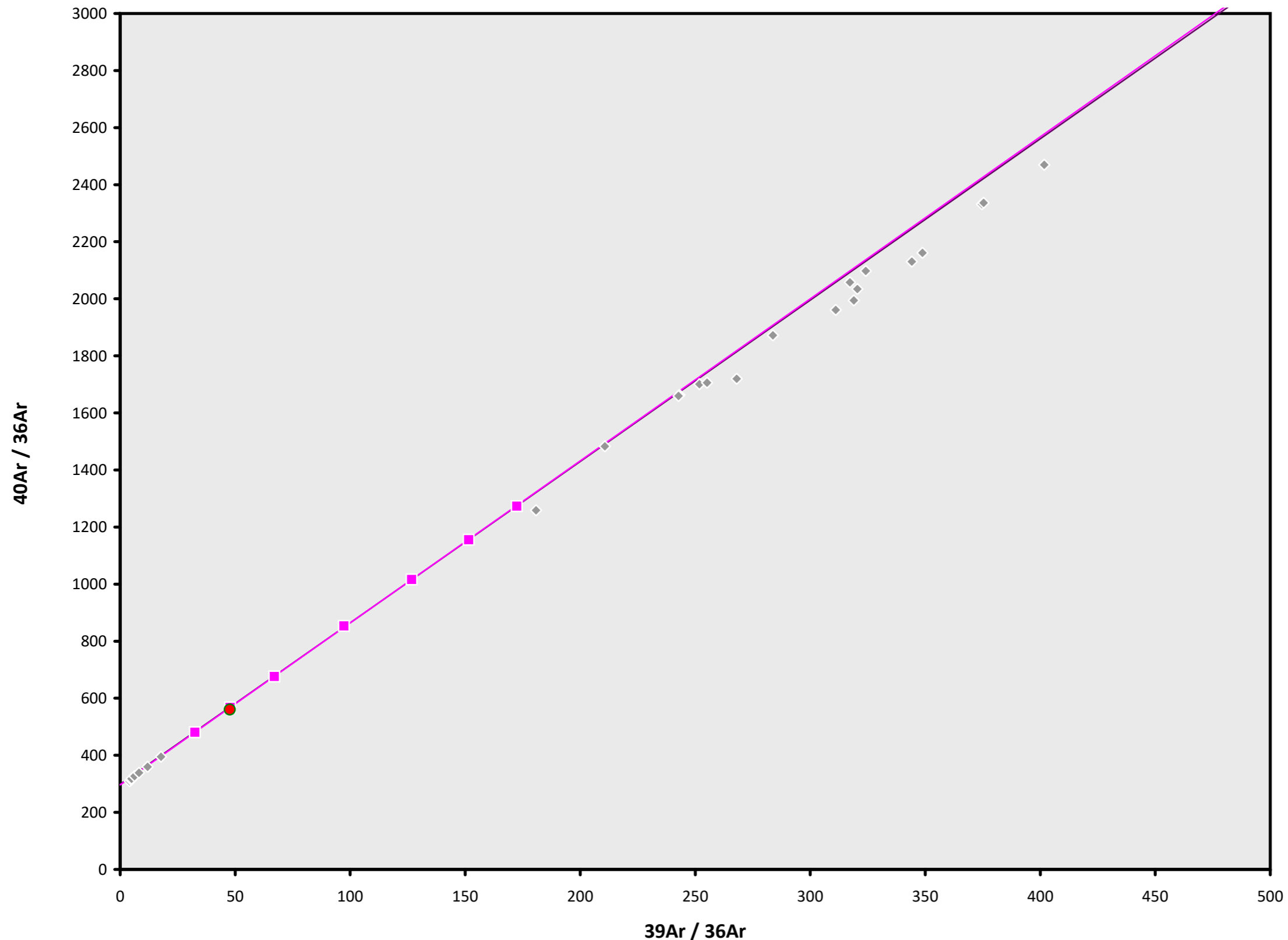
Leslie Gulch

Dan Miggins

IRR = 22-OSU-05 (5D20-22)

J = 0.00163439 ± 0.00000177

23F04028.AGE >>> LMF-19-80 >>> OREGON | MASS (22-34) PROJECT



### Ar-Ages in Ma

#### WEIGHTED PLATEAU

$16.84 \pm 0.07$

#### TOTAL FUSION

$16.37 \pm 0.05$

#### NORMAL ISOCHRON

$16.91 \pm 0.11$

#### INVERSE ISOCHRON

$16.91 \pm 0.11$

#### MSWD (PROBABILITY)

3.92 (0%)

#### CALCULATED $^{40}\text{Ar}/^{36}\text{Ar}$

#### INTERCEPT

$296.2 \pm 3.0$

### Sample Info

#### Groundmass

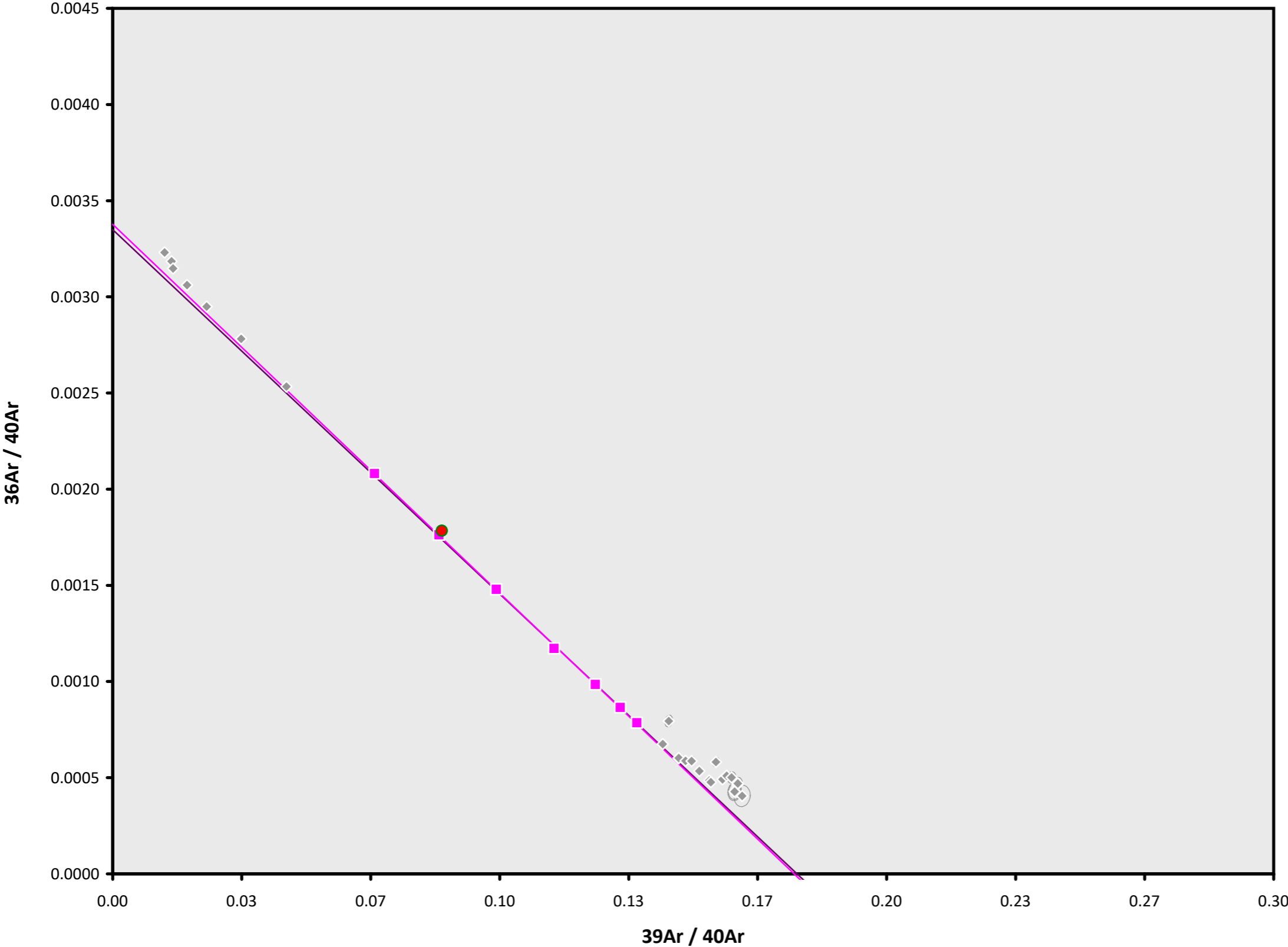
Leslie Gulch

Dan Miggins

IRR = 22-OSU-05 (5D20-22)

$J = 0.00163439 \pm 0.00000177$

23F04028.AGE >>> LMF-19-80 >>> OREGON | MASS (22-34) PROJECT



Ar-Ages in Ma

WEIGHTED PLATEAU

$16.84 \pm 0.07$

TOTAL FUSION

$16.37 \pm 0.05$

NORMAL ISOCHRON

$16.91 \pm 0.11$

INVERSE ISOCHRON

$16.91 \pm 0.11$

MSWD (PROBABILITY)

3.99 (0%)

SPREADING FACTOR

38.5%

CALCULATED  $^{40}\text{Ar}/^{36}\text{Ar}$

INTERCEPT

$296.2 \pm 3.1$

Sample Info

Groundmass

Leslie Gulch

Dan Miggins

IRR = 22-OSU-05 (5D20-22)

$J = 0.00163439 \pm 0.00000177$