

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
20F28623	0.5 %	✓	0.435704	0.341	0.57839	2.251	0.118905	8.669	4.4405	0.202	141.878	0.113	2.87797 ± 0.23393	8.74 ± 0.71	9.01	0.20	3.30 ± 0.15
20F28625	0.7 %	✓	0.790922	0.264	0.98362	1.271	0.265025	3.995	10.3102	0.098	262.677	0.062	2.74702 ± 0.14710	8.34 ± 0.45	10.78	0.47	4.51 ± 0.11
20F28626	0.9 %	✓	0.701430	0.263	1.11964	1.141	0.263996	4.045	11.8544	0.093	241.441	0.067	2.83623 ± 0.11381	8.61 ± 0.34	13.92	0.54	4.55 ± 0.10
20F28628	1.1 %	✓	0.616750	0.276	1.44868	0.912	0.283826	3.814	15.5834	0.073	225.559	0.072	2.75057 ± 0.07927	8.35 ± 0.24	19.00	0.72	4.63 ± 0.08
20F28629	1.3 %	✓	1.003059	0.214	3.33207	0.448	0.614745	1.859	37.2016	0.050	400.936	0.040	2.79235 ± 0.04491	8.48 ± 0.14	25.91	1.71	4.80 ± 0.04
20F28631	1.5 %	✓	0.874705	0.240	3.22874	0.434	0.611981	1.680	39.6277	0.047	369.785	0.044	2.79509 ± 0.03966	8.48 ± 0.12	29.95	1.82	5.28 ± 0.05
20F28632	1.8 %	✓	1.262775	0.209	6.23541	0.259	1.142907	0.987	77.0758	0.042	590.627	0.028	2.81288 ± 0.02676	8.54 ± 0.08	36.71	3.54	5.31 ± 0.03
20F28633	2.2 %	✓	0.396367	0.364	5.95161	0.262	0.938823	1.180	74.8042	0.043	328.241	0.049	2.82337 ± 0.01359	8.57 ± 0.04	64.34	3.44	5.40 ± 0.03
20F28635	2.6 %	✓	0.601363	0.277	8.36529	0.210	1.285851	0.837	100.5883	0.041	461.350	0.035	2.82071 ± 0.01223	8.56 ± 0.04	61.50	4.62	5.17 ± 0.02
20F28636	3.1 %	✓	0.481943	0.331	12.43155	0.178	1.636281	0.668	135.5539	0.041	522.636	0.031	2.80865 ± 0.00854	8.53 ± 0.03	72.84	6.23	4.69 ± 0.02
20F28637	3.6 %	✓	0.280084	0.443	16.11539	0.165	1.881162	0.581	155.3783	0.040	517.130	0.032	2.80180 ± 0.00594	8.50 ± 0.02	84.18	7.14	4.15 ± 0.01
20F28639	4.1 %		0.137567	0.751	11.49634	0.186	1.556403	0.721	129.3124	0.041	399.706	0.041	2.78236 ± 0.00592	8.45 ± 0.02	90.01	5.94	4.84 ± 0.02
20F28640	4.7 %		0.117142	0.813	4.72361	0.348	1.368390	0.767	113.5984	0.041	348.609	0.046	2.76594 ± 0.00625	8.40 ± 0.02	90.13	5.22	10.34 ± 0.07
20F28641	5.3 %		0.182307	0.604	14.16972	0.178	1.606215	0.661	131.5547	0.041	414.939	0.039	2.75158 ± 0.00614	8.35 ± 0.02	87.23	6.04	3.99 ± 0.01
20F28643	6.0 %		0.250150	0.457	16.02696	0.176	1.693873	0.636	136.2189	0.040	446.721	0.036	2.74416 ± 0.00623	8.33 ± 0.02	83.67	6.26	3.65 ± 0.01
20F28644	6.8 %		0.275027	0.461	5.95444	0.268	1.539222	0.665	121.0938	0.041	413.664	0.039	2.74630 ± 0.00749	8.34 ± 0.02	80.39	5.56	8.74 ± 0.05
20F28645	7.5 %		0.303829	0.390	5.29613	0.298	1.406131	0.762	111.6015	0.041	395.217	0.041	2.73767 ± 0.00780	8.31 ± 0.02	77.30	5.13	9.06 ± 0.05
20F28647	8.3 %		0.401032	0.343	14.46572	0.174	1.426369	0.802	111.7895	0.041	422.153	0.038	2.72301 ± 0.00894	8.27 ± 0.03	72.10	5.13	3.32 ± 0.01
20F28648	9.1 %		0.477945	0.332	5.74575	0.282	1.384519	0.775	106.5683	0.041	429.312	0.038	2.70301 ± 0.01065	8.21 ± 0.03	67.09	4.90	7.98 ± 0.05
20F28649	10.1 %		0.528137	0.301	5.48047	0.306	1.293686	0.840	98.9328	0.042	422.525	0.038	2.69247 ± 0.01169	8.17 ± 0.04	63.04	4.54	7.76 ± 0.05
20F28651	11.2 %		0.576427	0.281	5.26911	0.314	1.271167	0.882	96.5475	0.042	430.453	0.038	2.69270 ± 0.01234	8.17 ± 0.04	60.39	4.43	7.88 ± 0.05
20F28652	12.4 %		0.639292	0.272	12.39736	0.179	1.284492	0.829	96.0683	0.042	447.042	0.036	2.69092 ± 0.01332	8.17 ± 0.04	57.82	4.41	3.33 ± 0.01
20F28653	13.6 %		0.641037	0.273	4.85111	0.328	1.149048	0.894	84.6573	0.042	417.483	0.039	2.69115 ± 0.01516	8.17 ± 0.05	54.57	3.89	7.50 ± 0.05
20F28655	14.9 %		0.491156	0.306	4.30786	0.356	0.773748	1.394	56.3729	0.044	296.674	0.054	2.68593 ± 0.01917	8.15 ± 0.06	51.03	2.59	5.63 ± 0.04
20F28656	16.2 %		0.387853	0.352	4.12972	0.373	0.573512	1.852	41.7082	0.048	226.260	0.071	2.67604 ± 0.02311	8.12 ± 0.07	49.33	1.92	4.34 ± 0.03
20F28657	17.6 %		0.345328	0.362	10.06209	0.211	0.469918	2.289	33.9853	0.052	191.784	0.084	2.65501 ± 0.02610	8.06 ± 0.08	47.04	1.56	1.45 ± 0.01
20F28659	19.0 %		0.231437	0.486	9.11538	0.204	0.285451	3.796	21.3158	0.060	124.068	0.129	2.63667 ± 0.03655	8.00 ± 0.11	45.29	0.98	1.01 ± 0.00
20F28660	20.5 %		0.153737	0.669	2.97049	0.494	0.185014	5.800	13.4605	0.086	80.093	0.200	2.58237 ± 0.05266	7.84 ± 0.16	43.39	0.62	1.95 ± 0.02
20F28662	21.8 %		0.134352	0.775	9.30523	0.204	0.134196	7.395	9.8160	0.095	64.450	0.249	2.58585 ± 0.07235	7.85 ± 0.22	39.36	0.45	0.45 ± 0.00
Σ			13.718856	0.061	205.55788	0.048	28.444856	0.204	2177.0207	0.009	10033.413	0.009					

Information on Analysis and Constants Used in Calculations	
Project = MCCLAUGHRY (19-20)	
Sample = F-1-10-3040	
Material = Groundmass	
Location = Burns Butte	
Region = Harney Basin	
Analyst = Dan Miggins	
Irradiation = 20-OSU-04 (4B7-20)	
Position = X: 0   Y: 0   Z/H: 8.393235 mm	
FCT-NM Age = 28.201 ± 0.023 Ma	
FCT-NM Reference = Kuiper et al (2008)	
FCT-NM 40Ar/39Ar Ratio = 9.34095 ± 0.00448	
FCT-NM J-value = 0.00166209 ± 0.00000080	
Air Shot 40Ar/36Ar = 298.9570 ± 0.3438	
Air Shot MDF = 0.99966758 ± 0.00038761 (LIN)	
Experiment Type = Incremental Heating	
Extraction Method = Bulk Laser Heating	
Heating = 64 sec	
Isolation = 6.12 min	
Instrument = ARGUS-VI-F	
Preferred Age = Mini Plateau	
Age Classification = Crystallization Age	
IGSN = Undefined	
Rock Class = Undefined	
Lithology = Undefined	
Lat-Lon = Undefined - Undefined	

Age Equations = Min et al. (2000)  
Negative Intensities = Allowed  
Collector Calibrations = 36Ar  
Decay 40K = 5.463 ± 0.107 E-10 1/a  
Decay 39Ar = 2.940 ± 0.016 E-07 1/h  
Decay 37Ar = 8.230 ± 0.012 E-04 1/h  
Decay 36Cl = 2.257 ± 0.015 E-06 1/a  
Decay 40K(EC,β<sup>+</sup>) = 0.580 ± 0.014 E-10 1/a  
Decay 40K(β<sup>-</sup>) = 4.884 ± 0.099 E-10 1/a  
Atmospheric 40/36(a) = 296.40 ± 0.51  
Atmospheric 38/36(a) = 0.1885 ± 0.0003  
Production 39/37(ca) = 0.0006425 ± 0.0000059  
Production 38/37(ca) = 0.0001800 ± 0.0000173  
Production 36/37(ca) = 0.0002703 ± 0.0000005  
Production 40/39(k) = 0.000607 ± 0.000059  
Production 38/39(k) = 0.012077 ± 0.000011  
Production 36/38(cl) = 262.80 ± 1.71  
Scaling Ratio K/Ca = 0.430  
Abundance Ratio 40K/K = 1.1700 ± 0.0100 E-04  
Atomic Weight K = 39.0983 ± 0.0001 g

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		2.80771 ± 0.00566 ± 0.20%	8.52 ± 0.02 ± 0.22%	1.82 5%	30.43 11	4.70 ± 0.31
		Full External Error ± 0.44 Analytical Error ± 0.02		1.89 1.3506	2σ Confidence Limit Error Magnification	
Total Fusion Age		2.74809 ± 0.00283 ± 0.10%	8.34 ± 0.01 ± 0.14%		29	4.55 ± 0.00
		Full External Error ± 0.43 Analytical Error ± 0.01				
Normal Isochron Error Chron	296.44 ± 1.03 ± 0.35%	2.80751 ± 0.00763 ± 0.27%	8.52 ± 0.02 ± 0.29%	2.54 1%	30.43 11	
		Full External Error ± 0.44 Analytical Error ± 0.02		1.94 1.5943	2σ Confidence Limit Error Magnification	
				33 0.0000271164	Number of Iterations Convergence	
Inverse Isochron Error Chron	296.40 ± 1.03 ± 0.35%	2.80805 ± 0.00766 ± 0.27%	8.52 ± 0.02 ± 0.29%	2.55 1%	30.43 11	
		Full External Error ± 0.44 Analytical Error ± 0.02		1.94 1.5953	2σ Confidence Limit Error Magnification	
Notes				3 0.0000332724	Number of Iterations Convergence	
		Subatmospheric Initial 40Ar/36Ar = 296.40 ± 0.17 (%SD).		76%	Spreading Factor	

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
20F28623	0.5 %	✓	0.435548	0.57839	0.0000000	4.4401	12.7785	8.74 ± 0.71	9.01	0.20	3.30 ± 0.15
20F28625	0.7 %	✓	0.790656	0.98362	0.0000000	10.3096	28.3207	8.34 ± 0.45	10.78	0.47	4.51 ± 0.11
20F28626	0.9 %	✓	0.701127	1.11964	0.0000000	11.8536	33.6197	8.61 ± 0.34	13.92	0.54	4.55 ± 0.10
20F28628	1.1 %	✓	0.616358	1.44868	0.0000000	15.5825	42.8607	8.35 ± 0.24	19.00	0.72	4.63 ± 0.08
20F28629	1.3 %	✓	1.002158	3.33207	0.0000000	37.1995	103.8742	8.48 ± 0.14	25.91	1.71	4.80 ± 0.04
20F28631	1.5 %	✓	0.873832	3.22874	0.0000000	39.6256	110.7572	8.48 ± 0.12	29.95	1.82	5.28 ± 0.05
20F28632	1.8 %	✓	1.261089	6.23541	0.0000000	77.0718	216.7938	8.54 ± 0.08	36.71	3.54	5.31 ± 0.03
20F28633	2.2 %	✓	0.394758	5.95161	0.0000000	74.8004	211.1893	8.57 ± 0.04	64.34	3.44	5.40 ± 0.03
20F28635	2.6 %	✓	0.599102	8.36529	0.0000000	100.5829	283.7156	8.56 ± 0.04	61.50	4.62	5.17 ± 0.02
20F28636	3.1 %	✓	0.478582	12.43155	0.0000000	135.5459	380.7018	8.53 ± 0.03	72.84	6.23	4.69 ± 0.02
20F28637	3.6 %	✓	0.275728	16.11539	0.0000000	155.3679	435.3099	8.50 ± 0.02	84.18	7.14	4.15 ± 0.01
20F28639	4.1 %		0.134460	11.49634	0.0000000	129.3050	359.7732	8.45 ± 0.02	90.01	5.94	4.84 ± 0.02
20F28640	4.7 %		0.115865	4.72361	0.0000000	113.5954	314.1976	8.40 ± 0.02	90.13	5.22	10.34 ± 0.07
20F28641	5.3 %		0.178477	14.16972	0.0000000	131.5456	361.9583	8.35 ± 0.02	87.23	6.04	3.99 ± 0.01
20F28643	6.0 %		0.245818	16.02696	0.0000000	136.2086	373.7779	8.33 ± 0.02	83.67	6.26	3.65 ± 0.01
20F28644	6.8 %		0.273416	5.95444	0.0242069	121.0900	332.5498	8.34 ± 0.02	80.39	5.56	8.74 ± 0.05
20F28645	7.5 %		0.302398	5.29613	0.0004056	111.5981	305.5185	8.31 ± 0.02	77.30	5.13	9.06 ± 0.05
20F28647	8.3 %		0.397122	14.46572	0.0000000	111.7802	304.3782	8.27 ± 0.03	72.10	5.13	3.32 ± 0.01
20F28648	9.1 %		0.476392	5.74575	0.0067039	106.5646	288.0452	8.21 ± 0.03	67.09	4.90	7.98 ± 0.05
20F28649	10.1 %		0.526656	5.48047	0.0000000	98.9293	266.3640	8.17 ± 0.04	63.04	4.54	7.76 ± 0.05
20F28651	11.2 %		0.575002	5.26911	0.0000000	96.5441	259.9641	8.17 ± 0.04	60.39	4.43	7.88 ± 0.05
20F28652	12.4 %		0.635940	12.39736	0.0022648	96.0603	258.4910	8.17 ± 0.04	57.82	4.41	3.33 ± 0.01
20F28653	13.6 %		0.639725	4.85111	0.0052180	84.6542	227.8168	8.17 ± 0.05	54.57	3.89	7.50 ± 0.05
20F28655	14.9 %		0.489991	4.30786	0.0000000	56.3701	151.4063	8.15 ± 0.06	51.03	2.59	5.63 ± 0.04
20F28656	16.2 %		0.386736	4.12972	0.0000000	41.7055	111.6059	8.12 ± 0.07	49.33	1.92	4.34 ± 0.03
20F28657	17.6 %		0.342608	10.06209	0.0000000	33.9788	90.2143	8.06 ± 0.08	47.04	1.56	1.45 ± 0.01
20F28659	19.0 %		0.228973	9.11538	0.0000000	21.3100	56.1873	8.00 ± 0.11	45.29	0.98	1.01 ± 0.00
20F28660	20.5 %		0.152934	2.97049	0.0000000	13.4586	34.7550	7.84 ± 0.16	43.39	0.62	1.95 ± 0.02
20F28662	21.8 %		0.131837	9.30523	0.0000000	9.8101	25.3673	7.85 ± 0.22	39.36	0.45	0.45 ± 0.00
Σ			13.663292	205.55788	0.0387990	2176.8886	5982.2921				

Information on Analysis	Results	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Project = MCCLAUGHRY (19-20) Sample = F-1-10-3040 Material = Groundmass Location = Burns Butte Region = Harney Basin Analyst = Dan Miggins Irradiation = 20-OSU-04 (4B7-20) J = 0.00166209 ± 0.00000080 FCT-NM = 28.201 ± 0.023 Ma	Age Plateau	2.80771 ± 0.00566 ± 0.20%	8.52 ± 0.02 ± 0.22% Full External Error ± 0.44 Analytical Error ± 0.02	1.82 5% 1.89 1.3506	30.43 11 2σ Confidence Limit Error Magnification	4.70 ± 0.31
	Total Fusion Age	2.74809 ± 0.00283 ± 0.10%	8.34 ± 0.01 ± 0.14% Full External Error ± 0.43 Analytical Error ± 0.01		29	4.55 ± 0.00

Normal Isochron			39(k)/36(a) ± 2σ	40(a+r)/36(a) ± 2σ	r.i.
20F28623	0.5 %	✓	10.19 ± 0.08	325.74 ± 2.34	0.8165
20F28625	0.7 %	✓	13.04 ± 0.07	332.22 ± 1.80	0.9134
20F28626	0.9 %	✓	16.91 ± 0.09	344.35 ± 1.87	0.9141
20F28628	1.1 %	✓	25.28 ± 0.14	365.94 ± 2.09	0.9359
20F28629	1.3 %	✓	37.12 ± 0.16	400.05 ± 1.74	0.9568
20F28631	1.5 %	✓	45.35 ± 0.22	423.15 ± 2.07	0.9657
20F28632	1.8 %	✓	61.12 ± 0.26	468.31 ± 1.97	0.9715
20F28633	2.2 %	✓	189.48 ± 1.39	831.38 ± 6.13	0.9844
20F28635	2.6 %	✓	167.89 ± 0.94	769.97 ± 4.32	0.9812
20F28636	3.1 %	✓	283.22 ± 1.90	1091.88 ± 7.32	0.9884
20F28637	3.6 %	✓	563.48 ± 5.09	1875.17 ± 16.92	0.9936
20F28639	4.1 %		961.66 ± 14.80	2972.10 ± 45.75	0.9972
20F28640	4.7 %		980.41 ± 16.13	3008.15 ± 49.51	0.9972
20F28641	5.3 %		737.05 ± 9.11	2324.44 ± 28.72	0.9958
20F28643	6.0 %		554.10 ± 5.18	1816.95 ± 16.97	0.9932
20F28644	6.8 %		442.88 ± 4.13	1512.68 ± 14.09	0.9926
20F28645	7.5 %		369.04 ± 2.91	1306.72 ± 10.30	0.9891
20F28647	8.3 %		281.48 ± 1.96	1062.86 ± 7.41	0.9870
20F28648	9.1 %		223.69 ± 1.50	901.04 ± 6.05	0.9861
20F28649	10.1 %		187.84 ± 1.15	802.16 ± 4.89	0.9828
20F28651	11.2 %		167.90 ± 0.96	748.51 ± 4.25	0.9803
20F28652	12.4 %		151.05 ± 0.83	702.87 ± 3.87	0.9799
20F28653	13.6 %		132.33 ± 0.73	652.52 ± 3.60	0.9785
20F28655	14.9 %		115.04 ± 0.71	605.40 ± 3.77	0.9745
20F28656	16.2 %		107.84 ± 0.77	584.98 ± 4.22	0.9713
20F28657	17.6 %		99.18 ± 0.73	559.72 ± 4.20	0.9649
20F28659	19.0 %		93.07 ± 0.92	541.79 ± 5.50	0.9598
20F28660	20.5 %		88.00 ± 1.19	523.65 ± 7.34	0.9505
20F28662	21.8 %		74.41 ± 1.18	488.81 ± 8.09	0.9470

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Normal Isochron Error Chron	296.44 ± 1.03 ± 0.35%	2.80751 ± 0.00763 ± 0.27%	8.52 ± 0.02 ± 0.29% Full External Error ± 0.44 Analytical Error ± 0.02	2.54 1%
Statistics	2σ Confidence Limit Error Magnification Number of Data Points	1.94 1.5943 11	Convergence Number of Iterations Calculated Line	0.000027116413 33 Weighted York-2

Inverse Isochron			39(k)/40(a+r) ± 2σ	36(a)/40(a+r) ± 2σ	r.i.
20F28623	0.5 %	✓	0.0312959 ± 0.0001448	0.00306994 ± 0.00002204	0.1541
20F28625	0.7 %	✓	0.0392491 ± 0.0000907	0.00301006 ± 0.00001634	0.1207
20F28626	0.9 %	✓	0.0490968 ± 0.0001122	0.00290401 ± 0.00001576	0.1436
20F28628	1.1 %	✓	0.0690868 ± 0.0001412	0.00273270 ± 0.00001559	0.1757
20F28629	1.3 %	✓	0.0927868 ± 0.0001194	0.00249968 ± 0.00001090	0.1164
20F28631	1.5 %	✓	0.1071654 ± 0.0001374	0.00236323 ± 0.00001155	0.1216
20F28632	1.8 %	✓	0.1305018 ± 0.0001322	0.00213534 ± 0.00000900	0.0716
20F28633	2.2 %	✓	0.2279141 ± 0.0002971	0.00120281 ± 0.00000887	0.1011
20F28635	2.6 %	✓	0.2180473 ± 0.0002371	0.00129875 ± 0.00000728	0.0819
20F28636	3.1 %	✓	0.2593915 ± 0.0002652	0.00091585 ± 0.00000614	0.0567
20F28637	3.6 %	✓	0.3004975 ± 0.0003075	0.00053329 ± 0.00000481	0.0433
20F28639	4.1 %		0.3235642 ± 0.0003721	0.00033646 ± 0.00000518	0.0373
20F28640	4.7 %		0.3259177 ± 0.0004041	0.00033243 ± 0.00000547	0.0422
20F28641	5.3 %		0.3170853 ± 0.0003582	0.00043021 ± 0.00000532	0.0441
20F28643	6.0 %		0.3049640 ± 0.0003317	0.00055037 ± 0.00000514	0.0521
20F28644	6.8 %		0.2927776 ± 0.0003307	0.00066108 ± 0.00000616	0.0583
20F28645	7.5 %		0.2824201 ± 0.0003286	0.00076527 ± 0.00000603	0.0733
20F28647	8.3 %		0.2648286 ± 0.0002972	0.00094086 ± 0.00000656	0.0755
20F28648	9.1 %		0.2482591 ± 0.0002783	0.00110983 ± 0.00000745	0.0758
20F28649	10.1 %		0.2341717 ± 0.0002648	0.00124663 ± 0.00000760	0.0854
20F28651	11.2 %		0.2243152 ± 0.0002529	0.00133599 ± 0.00000758	0.0884
20F28652	12.4 %		0.2149079 ± 0.0002378	0.00142274 ± 0.00000784	0.0872
20F28653	13.6 %		0.2027979 ± 0.0002322	0.00153253 ± 0.00000846	0.0953
20F28655	14.9 %		0.1900289 ± 0.0002668	0.00165181 ± 0.00001029	0.1359
20F28656	16.2 %		0.1843465 ± 0.0003170	0.00170945 ± 0.00001233	0.1639
20F28657	17.6 %		0.1771914 ± 0.0003498	0.00178662 ± 0.00001340	0.1903
20F28659	19.0 %		0.1717788 ± 0.0004903	0.00184574 ± 0.00001874	0.2312
20F28660	20.5 %		0.1680544 ± 0.0007330	0.00190965 ± 0.00002678	0.2625
20F28662	21.8 %		0.1522266 ± 0.0008102	0.00204577 ± 0.00003386	0.2807

Results	40(a)/36(a) ± 2σ		40(r)/39(k) ± 2σ	Age ± 2σ (Ma)	MSWD
Inverse Isochron	296.40 ± 1.03		2.80805 ± 0.00766	8.52 ± 0.02	2.55
Error Chron	± 0.35%		± 0.27%	± 0.29%	1%
Full External Error ± 0.44					
Analytical Error ± 0.02					
Statistics	2σ Confidence Limit	1.94	Convergence	0.0000332724	
	Error Magnification	1.5953	Number of Iterations	3	
	Number of Data Points	11	Calculated Line	Weighted York-2	
	Spreading Factor	75.6%			



Additional Parameters			40Ar/39Ar	1σ	37Ar/39Ar	1σ	36Ar/39Ar	1σ	Time (days)	37Ar (decay)	39Ar (decay)	40Ar (moles)
20F28623	0.5 %	✓	31.950980	0.073913	0.130253	0.002944	0.098121	0.000388	23.861	1.606042	1.00016926	5.022E-12
20F28625	0.7 %	✓	25.477338	0.029439	0.095402	0.001216	0.076712	0.000216	23.880	1.606637	1.00016939	9.299E-12
20F28626	0.9 %	✓	20.367280	0.023274	0.094450	0.001082	0.059171	0.000165	23.889	1.606923	1.00016946	8.547E-12
20F28628	1.1 %	✓	14.474291	0.014788	0.092963	0.000851	0.039577	0.000113	23.907	1.607496	1.00016958	7.985E-12
20F28629	1.3 %	✓	10.777387	0.006936	0.089568	0.000404	0.026963	0.000059	23.916	1.607783	1.00016965	1.419E-11
20F28631	1.5 %	✓	9.331486	0.005980	0.081477	0.000355	0.022073	0.000054	23.934	1.608357	1.00016977	1.309E-11
20F28632	1.8 %	✓	7.662941	0.003882	0.080900	0.000213	0.016384	0.000035	23.943	1.608643	1.00016984	2.091E-11
20F28633	2.2 %	✓	4.388001	0.002859	0.079563	0.000211	0.005299	0.000019	23.952	1.608930	1.00016990	1.162E-11
20F28635	2.6 %	✓	4.586522	0.002493	0.083164	0.000178	0.005978	0.000017	23.971	1.609526	1.00017003	1.633E-11
20F28636	3.1 %	✓	3.855557	0.001970	0.091709	0.000168	0.003555	0.000012	23.980	1.609813	1.00017010	1.850E-11
20F28637	3.6 %	✓	3.328200	0.001702	0.103717	0.000176	0.001803	0.000008	23.989	1.610100	1.00017016	1.831E-11
20F28639	4.1 %		3.091007	0.001776	0.088904	0.000170	0.001064	0.000008	24.007	1.610675	1.00017029	1.415E-11
20F28640	4.7 %		3.068785	0.001901	0.041582	0.000146	0.001031	0.000008	24.016	1.610962	1.00017035	1.234E-11
20F28641	5.3 %		3.154114	0.001780	0.107710	0.000197	0.001386	0.000008	24.025	1.611249	1.00017042	1.469E-11
20F28643	6.0 %		3.279435	0.001782	0.117656	0.000212	0.001836	0.000008	24.043	1.611824	1.00017054	1.581E-11
20F28644	6.8 %		3.416061	0.001928	0.049172	0.000133	0.002271	0.000011	24.053	1.612133	1.00017061	1.464E-11
20F28645	7.5 %		3.541324	0.002059	0.047456	0.000143	0.002722	0.000011	24.062	1.612421	1.00017068	1.399E-11
20F28647	8.3 %		3.776320	0.002118	0.129401	0.000231	0.003587	0.000012	24.080	1.612996	1.00017080	1.494E-11
20F28648	9.1 %		4.028518	0.002257	0.053916	0.000153	0.004485	0.000015	24.089	1.613284	1.00017087	1.520E-11
20F28649	10.1 %		4.270825	0.002414	0.055396	0.000171	0.005338	0.000016	24.098	1.613571	1.00017093	1.496E-11
20F28651	11.2 %		4.458464	0.002512	0.054575	0.000173	0.005970	0.000017	24.116	1.614147	1.00017106	1.524E-11
20F28652	12.4 %		4.653377	0.002573	0.129047	0.000237	0.006655	0.000018	24.125	1.614435	1.00017112	1.583E-11
20F28653	13.6 %		4.931443	0.002822	0.057303	0.000189	0.007572	0.000021	24.135	1.614745	1.00017119	1.478E-11
20F28655	14.9 %		5.262705	0.003694	0.076417	0.000274	0.008713	0.000027	24.153	1.615321	1.00017132	1.050E-11
20F28656	16.2 %		5.424829	0.004663	0.099015	0.000373	0.009299	0.000033	24.162	1.615609	1.00017138	8.010E-12
20F28657	17.6 %		5.643147	0.005568	0.296072	0.000643	0.010161	0.000037	24.171	1.615897	1.00017145	6.789E-12
20F28659	19.0 %		5.820447	0.008305	0.427634	0.000911	0.010857	0.000053	24.189	1.616473	1.00017157	4.392E-12
20F28660	20.5 %		5.950217	0.012974	0.220682	0.001106	0.011421	0.000077	24.198	1.616762	1.00017164	2.835E-12
20F28662	21.8 %		6.565759	0.017470	0.947962	0.002130	0.013687	0.000107	24.216	1.617338	1.00017176	2.282E-12



Procedure Blanks		36Ar ± 1σ (SE) [fA]	37Ar ± 1σ (SE) [fA]	38Ar ± 1σ (SE) [fA]	39Ar ± 1σ (SE) [fA]	40Ar ± 1σ (SE) [fA]
20F28623	0.5 %	0.0161177 ± 0.0007324	0.0157402 ± 0.0056916	0.0080560 ± 0.0075625	0.0138512 ± 0.0060860	4.8183310 ± 0.1591604
20F28625	0.7 %	0.0162179 ± 0.0007324	0.0235365 ± 0.0056916	0.0083056 ± 0.0075625	0.0127982 ± 0.0060860	4.8831174 ± 0.1591604
20F28626	0.9 %	0.0162841 ± 0.0007324	0.0263690 ± 0.0056916	0.0081029 ± 0.0075625	0.0127109 ± 0.0060860	4.9160647 ± 0.1591604
20F28628	1.1 %	0.0164218 ± 0.0007324	0.0304299 ± 0.0056916	0.0071969 ± 0.0075625	0.0130560 ± 0.0060860	4.9755411 ± 0.1591604
20F28629	1.3 %	0.0164835 ± 0.0007324	0.0317332 ± 0.0056916	0.0065415 ± 0.0075625	0.0133863 ± 0.0060860	4.9989300 ± 0.1591604
20F28631	1.5 %	0.0165736 ± 0.0007324	0.0330704 ± 0.0056916	0.0049391 ± 0.0075625	0.0141446 ± 0.0060860	5.0269738 ± 0.1591604
20F28632	1.8 %	0.0165963 ± 0.0007324	0.0331775 ± 0.0056916	0.0040346 ± 0.0075625	0.0145007 ± 0.0060860	5.0299404 ± 0.1591604
20F28633	2.2 %	0.0166015 ± 0.0007324	0.0329586 ± 0.0056916	0.0030879 ± 0.0075625	0.0148017 ± 0.0060860	5.0248147 ± 0.1591604
20F28635	2.6 %	0.0165522 ± 0.0007324	0.0316176 ± 0.0056916	0.0010686 ± 0.0075625	0.0151553 ± 0.0060860	4.9875563 ± 0.1591604
20F28636	3.1 %	0.0164994 ± 0.0007324	0.0306193 ± 0.0056916	0.0001073 ± 0.0075625	0.0151622 ± 0.0060860	4.9570821 ± 0.1591604
20F28637	3.6 %	0.0164286 ± 0.0007324	0.0294395 ± 0.0056916	0.0008245 ± 0.0075625	0.0150503 ± 0.0060860	4.9190585 ± 0.1591604
20F28639	4.1 %	0.0162404 ± 0.0007324	0.0266737 ± 0.0056916	0.0025397 ± 0.0075625	0.0144639 ± 0.0060860	4.8235954 ± 0.1591604
20F28640	4.7 %	0.0161282 ± 0.0007324	0.0251562 ± 0.0056916	0.0032955 ± 0.0075625	0.0139988 ± 0.0060860	4.7683769 ± 0.1591604
20F28641	5.3 %	0.0160086 ± 0.0007324	0.0235944 ± 0.0056916	0.0039663 ± 0.0075625	0.0134338 ± 0.0060860	4.7100510 ± 0.1591604
20F28643	6.0 %	0.0157650 ± 0.0007324	0.0204713 ± 0.0056916	0.0050081 ± 0.0075625	0.0120784 ± 0.0060860	4.5911812 ± 0.1591604
20F28644	6.8 %	0.0156435 ± 0.0007324	0.0188645 ± 0.0056916	0.0053805 ± 0.0075625	0.0112803 ± 0.0060860	4.5306397 ± 0.1591604
20F28645	7.5 %	0.0155454 ± 0.0007324	0.0174658 ± 0.0056916	0.0055954 ± 0.0075625	0.0105407 ± 0.0060860	4.4799681 ± 0.1591604
20F28647	8.3 %	0.0154212 ± 0.0007324	0.0150695 ± 0.0056916	0.0056158 ± 0.0075625	0.0092250 ± 0.0060860	4.4058887 ± 0.1591604
20F28648	9.1 %	0.0154112 ± 0.0007324	0.0141359 ± 0.0056916	0.0054084 ± 0.0075625	0.0087397 ± 0.0060860	4.3886112 ± 0.1591604
20F28649	10.1 %	0.0154480 ± 0.0007324	0.0134207 ± 0.0056916	0.0050488 ± 0.0075625	0.0084384 ± 0.0060860	4.3889987 ± 0.1591604
20F28651	11.2 %	0.0157010 ± 0.0007324	0.0127707 ± 0.0056916	0.0038575 ± 0.0075625	0.0086249 ± 0.0060860	4.4576910 ± 0.1591604
20F28652	12.4 %	0.0159389 ± 0.0007324	0.0128975 ± 0.0056916	0.0030200 ± 0.0075625	0.0092440 ± 0.0060860	4.5340620 ± 0.1591604
20F28653	13.6 %	0.0162958 ± 0.0007324	0.0134172 ± 0.0056916	0.0019354 ± 0.0075625	0.0104120 ± 0.0060860	4.6542363 ± 0.1591604
20F28655	14.9 %	0.0172885 ± 0.0007324	0.0155620 ± 0.0056916	0.0005828 ± 0.0075625	0.0142937 ± 0.0060860	5.0014566 ± 0.1591604
20F28656	16.2 %	0.0179732 ± 0.0007324	0.0172700 ± 0.0056916	0.0020856 ± 0.0075625	0.0172448 ± 0.0060860	5.2457592 ± 0.1591604
20F28657	17.6 %	0.0188026 ± 0.0007324	0.0194409 ± 0.0056916	0.0037483 ± 0.0075625	0.0209927 ± 0.0060860	5.5442862 ± 0.1591604
20F28659	19.0 %	0.0209571 ± 0.0007324	0.0252866 ± 0.0056916	0.0075392 ± 0.0075625	0.0312785 ± 0.0060860	6.3267549 ± 0.1591604
20F28660	20.5 %	0.0223145 ± 0.0007324	0.0290184 ± 0.0056916	0.0096583 ± 0.0075625	0.0380290 ± 0.0060860	6.8226720 ± 0.1591604
20F28662	21.8 %	0.0256760 ± 0.0007324	0.0382407 ± 0.0056916	0.0143140 ± 0.0075625	0.0553148 ± 0.0060860	8.0556253 ± 0.1591604

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)
20F28623	0.5 %	0.4252853 ± 0.0010013	0.9441	EXP	150 of 150	0.3440324 ± 0.0057415	0.2073	EXP	150 of 150	0.1268821 ± 0.0069928	0.0038	EXP	148 of 150	4.4521049 ± 0.0063418	0.9776	EXP	148 of 150	146.695958 ± 0.020663	0.9997	EXP	148 of 150
20F28625	0.7 %	0.7589682 ± 0.0014104	0.9678	EXP	150 of 150	0.5880765 ± 0.0052278	0.5135	EXP	150 of 150	0.2731542 ± 0.0073963	0.1232	EXP	149 of 150	10.3178666 ± 0.0069744	0.9953	EXP	150 of 150	267.560451 ± 0.028098	0.9999	EXP	150 of 150
20F28626	0.9 %	0.6749934 ± 0.0011916	0.9693	EXP	150 of 150	0.6696981 ± 0.0054630	0.5572	EXP	150 of 150	0.2719234 ± 0.0075266	0.1055	EXP	150 of 150	11.8611280 ± 0.0079218	0.9955	EXP	150 of 150	246.357094 ± 0.024818	0.9999	EXP	150 of 150
20F28628	1.1 %	0.5956084 ± 0.0011008	0.9666	EXP	150 of 150	0.8698753 ± 0.0057929	0.6659	EXP	150 of 150	0.2908337 ± 0.0077306	0.0641	EXP	150 of 150	15.5886557 ± 0.0074583	0.9977	EXP	150 of 150	230.534362 ± 0.026815	0.9998	EXP	150 of 150
20F28629	1.3 %	0.9584507 ± 0.0011809	0.9852	EXP	150 of 150	2.0386631 ± 0.0067807	0.8999	EXP	150 of 150	0.6208775 ± 0.0085445	0.3177	EXP	150 of 150	37.1963775 ± 0.0101395	0.9993	EXP	149 of 150	405.935422 ± 0.030295	0.9999	EXP	150 of 150
20F28631	1.5 %	0.8380041 ± 0.0013176	0.9763	EXP	150 of 150	1.9724103 ± 0.0059973	0.9188	EXP	149 of 150	0.6165133 ± 0.0069382	0.4321	EXP	148 of 150	39.6219504 ± 0.0085691	0.9996	EXP	150 of 150	374.812086 ± 0.026671	0.9999	EXP	147 of 150
20F28632	1.8 %	1.2024611 ± 0.0014865	0.9856	EXP	150 of 150	3.8391566 ± 0.0064290	0.9756	EXP	150 of 150	1.1461822 ± 0.0083189	0.6578	EXP	150 of 150	77.0516595 ± 0.0119902	0.9998	EXP	150 of 150	595.657362 ± 0.036222	1.0000	EXP	150 of 150
20F28633	2.2 %	0.3888276 ± 0.0009836	0.9190	EXP	150 of 150	3.6624685 ± 0.0060475	0.9759	EXP	150 of 150	0.9412870 ± 0.0080545	0.5971	EXP	150 of 150	74.7814998 ± 0.0119100	0.9998	EXP	150 of 150	333.265808 ± 0.028909	0.9999	EXP	149 of 150
20F28635	2.6 %	0.5812890 ± 0.0010692	0.9626	EXP	150 of 150	5.1605659 ± 0.0061130	0.9882	EXP	147 of 150	1.2860651 ± 0.0075783	0.7585	EXP	150 of 150	100.5529902 ± 0.0132371	0.9998	EXP	150 of 150	466.338003 ± 0.034543	0.9999	EXP	150 of 150
20F28636	3.1 %	0.4690891 ± 0.0011055	0.9301	EXP	150 of 150	7.6840485 ± 0.0069772	0.9929	EXP	150 of 150	1.6353011 ± 0.0077753	0.8067	EXP	150 of 150	135.5010663 ± 0.0150667	0.9999	EXP	150 of 150	527.592946 ± 0.033655	1.0000	EXP	150 of 150
20F28637	3.6 %	0.2794539 ± 0.0008095	0.8271	EXP	150 of 150	9.9695285 ± 0.0076695	0.9945	EXP	150 of 150	1.8790866 ± 0.0077560	0.8700	EXP	150 of 150	155.3153458 ± 0.0158554	0.9999	EXP	150 of 150	522.049038 ± 0.036460	0.9999	EXP	150 of 150
20F28639	4.1 %	0.1454289 ± 0.0006044	0.3941	EXP	150 of 150	7.1038107 ± 0.0072202	0.9914	EXP	150 of 150	1.5528288 ± 0.0081950	0.7957	EXP	150 of 150	129.2619318 ± 0.0150543	0.9999	EXP	150 of 150	404.529121 ± 0.031009	0.9999	EXP	150 of 150
20F28640	4.7 %	0.1261358 ± 0.0004834	0.3751	EXP	148 of 150	2.9040940 ± 0.0074869	0.9535	EXP	149 of 150	1.3641850 ± 0.0071845	0.8063	EXP	150 of 150	113.5553821 ± 0.0145068	0.9999	EXP	150 of 150	353.377440 ± 0.027849	0.9999	EXP	150 of 150
20F28641	5.3 %	0.1872122 ± 0.0006788	0.6687	EXP	150 of 150	8.7618947 ± 0.0085533	0.9917	EXP	150 of 150	1.6011811 ± 0.0073407	0.8461	EXP	149 of 150	131.5021214 ± 0.0150691	0.9999	EXP	150 of 150	419.648754 ± 0.033409	0.9999	EXP	149 of 150
20F28643	6.0 %	0.2506797 ± 0.0006970	0.8425	EXP	150 of 150	9.9129989 ± 0.0096693	0.9921	EXP	150 of 150	1.6877391 ± 0.0075548	0.8370	EXP	150 of 150	136.1625750 ± 0.0148070	0.9999	EXP	150 of 150	451.312260 ± 0.031276	0.9999	EXP	149 of 150
20F28644	6.8 %	0.2739197 ± 0.0008498	0.8123	EXP	150 of 150	3.6709717 ± 0.0063893	0.9733	EXP	148 of 150	1.5328182 ± 0.0067835	0.8613	EXP	150 of 150	121.0442952 ± 0.0139574	0.9999	EXP	148 of 150	418.194570 ± 0.028907	0.9999	EXP	146 of 150
20F28645	7.5 %	0.3008699 ± 0.0007122	0.8903	EXP	150 of 150	3.2638450 ± 0.0065979	0.9636	EXP	150 of 150	1.3996007 ± 0.0075012	0.7912	EXP	150 of 150	111.5559455 ± 0.0147614	0.9998	EXP	150 of 150	399.696931 ± 0.029662	0.9999	EXP	150 of 150
20F28647	8.3 %	0.3920282 ± 0.0008891	0.9294	EXP	148 of 150	8.9442323 ± 0.0080570	0.9934	EXP	147 of 150	1.4198053 ± 0.0084937	0.7399	EXP	150 of 150	111.7425513 ± 0.0134964	0.9999	EXP	148 of 150	426.558852 ± 0.030096	0.9999	EXP	150 of 150
20F28648	9.1 %	0.4642469 ± 0.0010981	0.9276	EXP	150 of 150	3.5438406 ± 0.0067095	0.9694	EXP	150 of 150	1.3781904 ± 0.0075178	0.7791	EXP	150 of 150	106.5235145 ± 0.0144926	0.9998	EXP	150 of 150	433.701041 ± 0.030319	0.9999	EXP	150 of 150
20F28649	10.1 %	0.5114190 ± 0.0010527	0.9459	EXP	150 of 150	3.3796818 ± 0.0073579	0.9579	EXP	150 of 150	1.2877773 ± 0.0077293	0.7450	EXP	150 of 150	98.8915583 ± 0.0136494	0.9998	EXP	150 of 150	426.913884 ± 0.029876	0.9999	EXP	150 of 150
20F28651	11.2 %	0.5570203 ± 0.0010332	0.9587	EXP	150 of 150	3.2483086 ± 0.0072886	0.9602	EXP	150 of 150	1.2664647 ± 0.0082165	0.6986	EXP	150 of 150	96.5075700 ± 0.0145007	0.9998	EXP	150 of 150	434.911135 ± 0.028839	0.9999	EXP	150 of 150
20F28652	12.4 %	0.6162942 ± 0.0011206	0.9632	EXP	150 of 150	7.6585243 ± 0.0070025	0.9927	EXP	147 of 150	1.2806180 ± 0.0074255	0.7399	EXP	150 of 150	96.0292525 ± 0.0133649	0.9998	EXP	150 of 150	451.576164 ± 0.034295	0.9999	EXP	150 of 150
20F28653	13.6 %	0.6182898 ± 0.0011352	0.9613	EXP	150 of 150	2.9878465 ± 0.0069204	0.9594	EXP	150 of 150	1.1463489 ± 0.0068846	0.7269	EXP	150 of 150	84.6251553 ± 0.0125998	0.9998	EXP	149 of 150	422.136960 ± 0.029623	0.9999	EXP	150 of 150
20F28655	14.9 %	0.4785304 ± 0.0009709	0.9512	EXP	148 of 150	2.6486606 ± 0.0066969	0.9535	EXP	146 of 150	0.7738165 ± 0.0076597	0.4607	EXP	150 of 150	56.3588456 ± 0.0104408	0.9997	EXP	150 of 150	301.675451 ± 0.028143	0.9999	EXP	150 of 150
20F28656	16.2 %	0.3822036 ± 0.0008899	0.9316	EXP	150 of 150	2.5363214 ± 0.0068222	0.9395	EXP	149 of 150	0.5752162 ± 0.0074336	0.3410	EXP	150 of 150	41.7044643 ± 0.0102286	0.9994	EXP	150 of 150	231.505625 ± 0.025656	0.9998	EXP	150 of 150
20F28657	17.6 %	0.3430985 ± 0.0007699	0.9375	EXP	149 of 150	6.2012941 ± 0.0083197	0.9840	EXP	150 of 150	0.4733540 ± 0.0076299	0.2609	EXP	149 of 150	33.9891977 ± 0.0100706	0.9992	EXP	150 of 150	197.328354 ± 0.023669	0.9998	EXP	150 of 150
20F28659	19.0 %	0.2382979 ± 0.0006812	0.8908	EXP	146 of 150	5.6081526 ± 0.0065164	0.9881	EXP	147 of 150	0.2928006 ± 0.0077457	0.0795	EXP	150 of 150	21.3363980 ± 0.0076762	0.9988	EXP	149 of 150	130.394518 ± 0.021107	0.9995	EXP	149 of 150
20F28660	20.5 %	0.1666880 ± 0.0005874	0.7996	EXP	150 of 150	1.8064579 ± 0.0066055	0.8873	EXP	150 of 150	0.1945495 ± 0.0076017	0.0534	EXP	150 of 150	13.4917344 ± 0.0083687	0.9961	EXP	150 of 150	86.915447 ± 0.020280	0.9987	EXP	150 of 150
20F28662	21.8 %	0.1518453 ± 0.0006166	0.7312	EXP	150 of 150	5.7094520 ± 0.0066650	0.9879	EXP	149 of 150	0.1484208 ± 0.0064139	0.0332	EXP	148 of 150	9.8664085 ± 0.0059186	0.9964	EXP	150 of 150	72.505352 ± 0.018555	0.9981	EXP	150 of 150

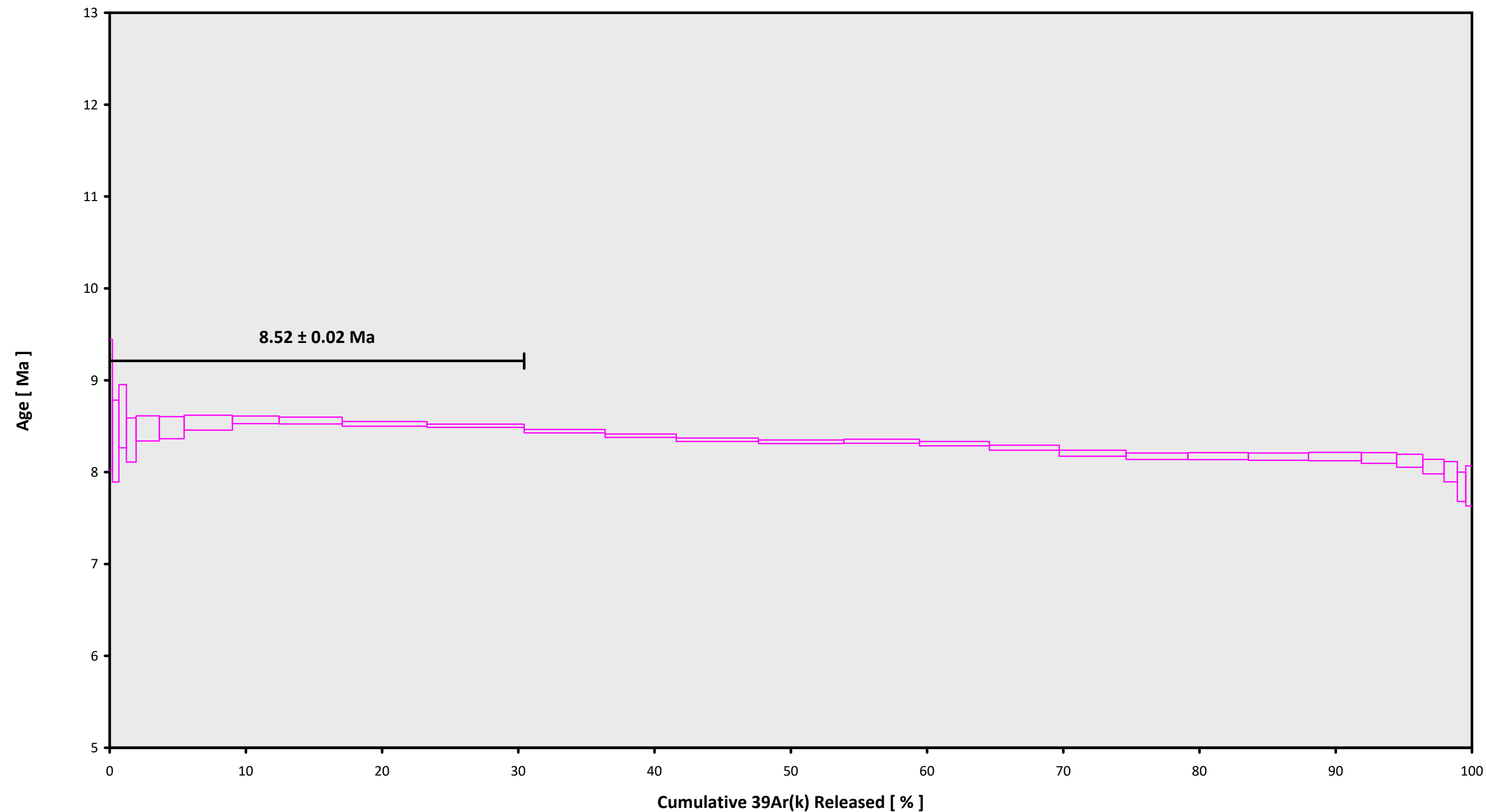


Project Info		Analyst	Irradiation	X-pos	Y-pos	Z/H-pos	Project	Experiment	Nmb
20F28623	0.5 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28625	0.7 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28626	0.9 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28628	1.1 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28629	1.3 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28631	1.5 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28632	1.8 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28633	2.2 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28635	2.6 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28636	3.1 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28637	3.6 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28639	4.1 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28640	4.7 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28641	5.3 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28643	6.0 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28644	6.8 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28645	7.5 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28647	8.3 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28648	9.1 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28649	10.1 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28651	11.2 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28652	12.4 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28653	13.6 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28655	14.9 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28656	16.2 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28657	17.6 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28659	19.0 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28660	20.5 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01
20F28662	21.8 %	Dan Miggins	20-OSU-04	0.00	0.00	8.39	Oregon\McCloughry (19-20)	20F28619	01

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
20F28623	0.5 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	12	16	1	
20F28625	0.7 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	12	43	1	
20F28626	0.9 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	12	56	1	
20F28628	1.1 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	13	22	1	
20F28629	1.3 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	13	35	1	
20F28631	1.5 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	14	1	1	
20F28632	1.8 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	14	14	1	
20F28633	2.2 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	14	27	1	
20F28635	2.6 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	14	54	1	
20F28636	3.1 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	15	7	1	
20F28637	3.6 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	15	20	1	
20F28639	4.1 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	15	46	1	
20F28640	4.7 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	15	59	1	
20F28641	5.3 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	16	12	1	
20F28643	6.0 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	16	38	1	
20F28644	6.8 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	16	52	1	
20F28645	7.5 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	17	5	1	
20F28647	8.3 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	17	31	1	
20F28648	9.1 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	17	44	1	
20F28649	10.1 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	17	57	1	
20F28651	11.2 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	18	23	1	
20F28652	12.4 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	18	36	1	
20F28653	13.6 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	18	50	1	
20F28655	14.9 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	19	16	1	
20F28656	16.2 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	19	29	1	
20F28657	17.6 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	19	42	1	
20F28659	19.0 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	20	8	1	
20F28660	20.5 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	20	21	1	
20F28662	21.8 %	F-1-10-3040	Groundmass	Burns Butte	FCT-NM (4B7-20)	28.201	0.082	Kuiper et al (2008)	9.34095	0.048	0.00166209	0.048	298.957	0.115	0.99966758	0.039	1	3.54E-14	25	OCT	2020	20	47	1	

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
20F28623	0.5 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28625	0.7 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28626	0.9 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28628	1.1 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28629	1.3 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28631	1.5 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28632	1.8 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28633	2.2 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28635	2.6 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28636	3.1 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28637	3.6 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28639	4.1 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28640	4.7 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28641	5.3 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28643	6.0 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28644	6.8 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28645	7.5 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28647	8.3 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28648	9.1 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28649	10.1 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28651	11.2 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28652	12.4 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28653	13.6 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28655	14.9 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28656	16.2 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28657	17.6 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28659	19.0 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28660	20.5 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0
20F28662	21.8 %	296.4	0.173	0.018	35	0.1885	0.159	1.493	3	0.0006425	0.92	0.00018	9.63	0.0002703	0.17	0.000607	9.65	0.012077	0.09	0	0	0.43	0	0	0	0	0

20F28619.AGE >>> F-1-10-3040 >>> OREGON | MCCLAUGHRY (19-20) PROJECT



Ar-Ages in Ma

WEIGHTED PLATEAU

8.52 ± 0.02

TOTAL FUSION

8.34 ± 0.01

NORMAL ISOCHRON

8.52 ± 0.02

INVERSE ISOCHRON

8.52 ± 0.02

MSWD (PROBABILITY)

1.82 (5%)

Sample Info

Groundmass

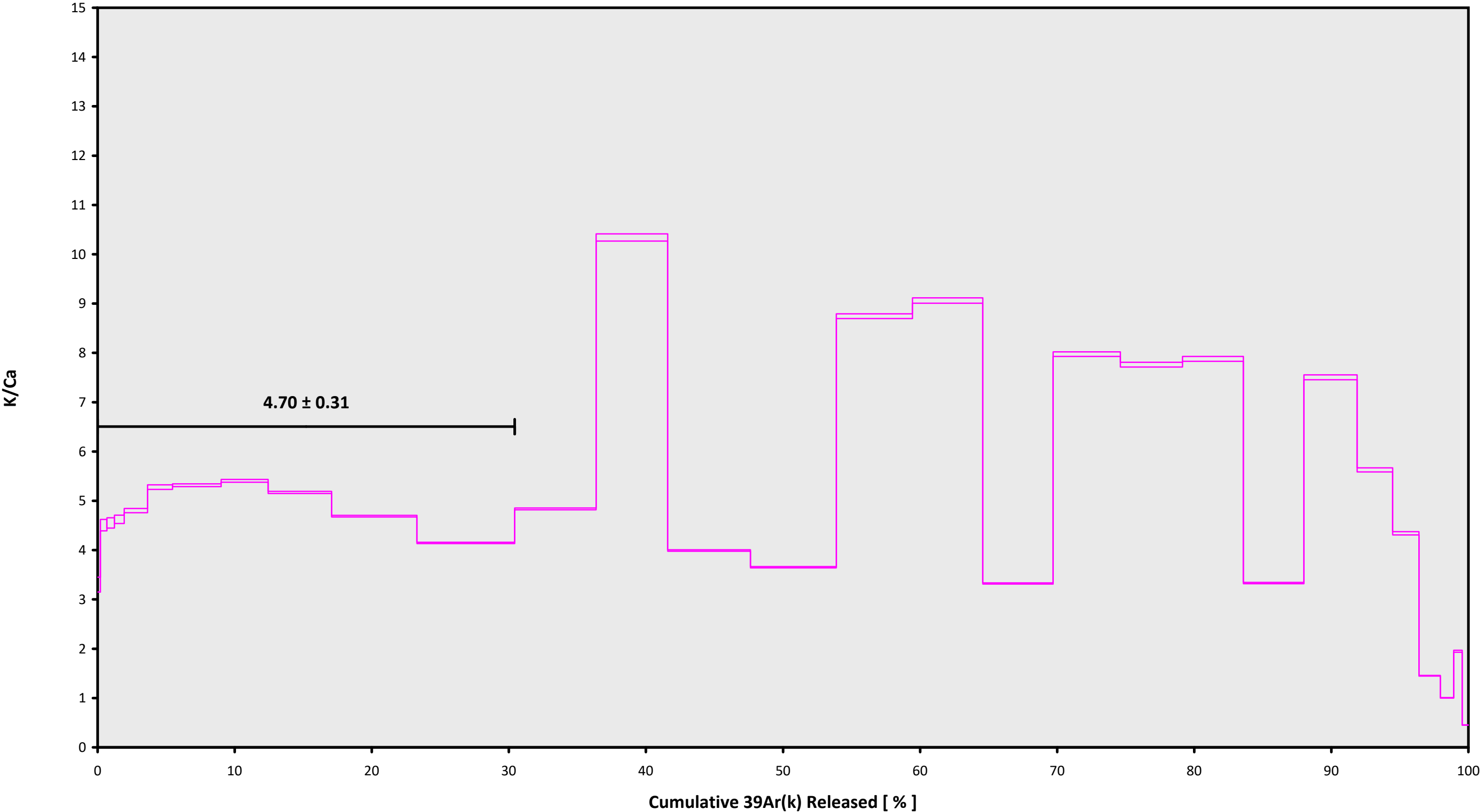
Burns Butte

Dan Miggins

IRR = 20-OSU-04 (4B7-20)

J = 0.00166209 ± 0.00000080

20F28619.AGE >>> F-1-10-3040 >>> OREGON | MCCLAUGHRY (19-20) PROJECT



**Ar-Ages in Ma**

**WEIGHTED PLATEAU**

**8.52 ± 0.02**

**TOTAL FUSION**

**8.34 ± 0.01**

**NORMAL ISOCHRON**

**8.52 ± 0.02**

**INVERSE ISOCHRON**

**8.52 ± 0.02**

**Sample Info**

**Groundmass**

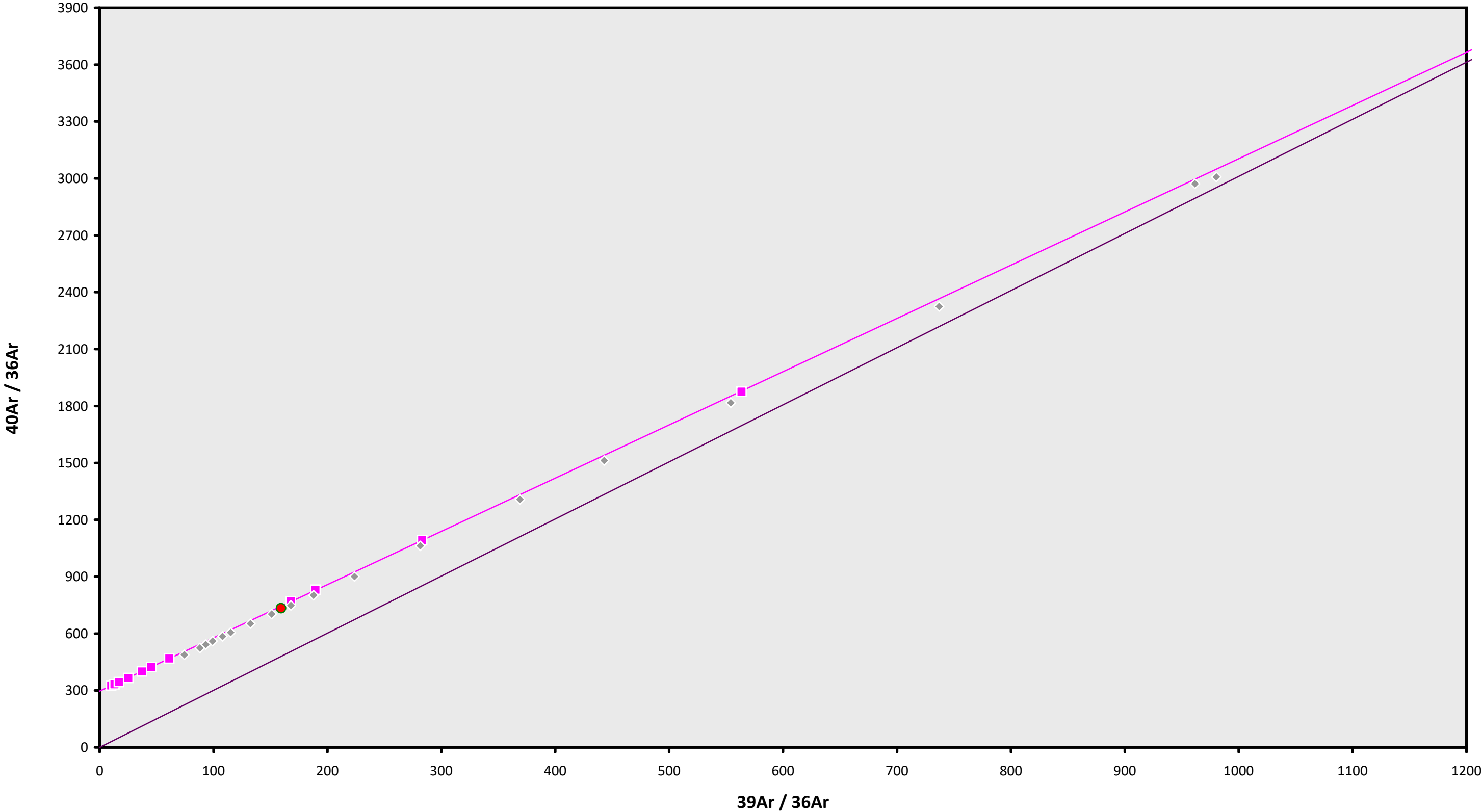
**Burns Butte**

**Dan Miggins**

**IRR = 20-OSU-04 (4B7-20)**

**J = 0.00166209 ± 0.00000080**

20F28619.AGE >>> F-1-10-3040 >>> OREGON | MCCLAUGHRY (19-20) PROJECT



Ar-Ages in Ma

WEIGHTED PLATEAU

$8.52 \pm 0.02$

TOTAL FUSION

$8.34 \pm 0.01$

NORMAL ISOCHRON

$8.52 \pm 0.02$

INVERSE ISOCHRON

$8.52 \pm 0.02$

MSWD (PROBABILITY)

2.54 (1%)

40AR/36AR INTERCEPT

$296.4 \pm 1.0$

Sample Info

Groundmass

Burns Butte

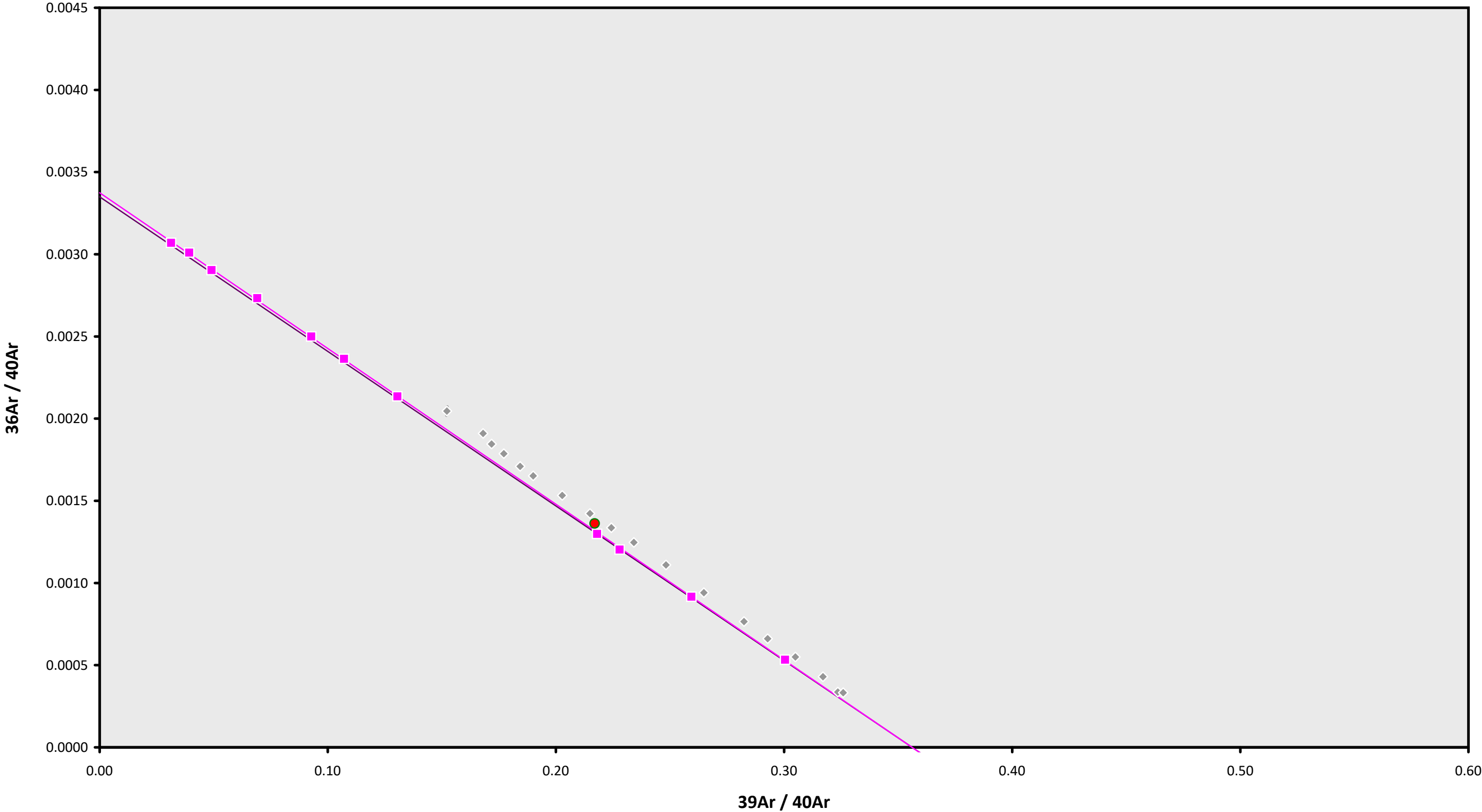
Dan Miggins

IRR = 20-OSU-04 (4B7-20)

$J = 0.00166209 \pm 0.00000080$



20F28619.AGE >>> F-1-10-3040 >>> OREGON | MCCLAUGHRY (19-20) PROJECT



Ar-Ages in Ma

WEIGHTED PLATEAU

8.52 ± 0.02

TOTAL FUSION

8.34 ± 0.01

NORMAL ISOCHRON

8.52 ± 0.02

INVERSE ISOCHRON

8.52 ± 0.02

MSWD (PROBABILITY)

2.55 (1%)

SPREADING FACTOR

75.6%

40AR/36AR INTERCEPT

296.4 ± 1.0

Sample Info

Groundmass

Burns Butte

Dan Miggins

IRR = 20-OSU-04 (4B7-20)

J = 0.00166209 ± 0.00000080