



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

Alaska Geologic Materials Center *Data Report No. 420*

No. 420

Shimer, G., 2013, X-Ray Fluorescence Spectroscopy and $^{40}\text{Ar}/^{39}\text{Ar}$ analyses of core from the Gubik Test #1, Gubik Test #2, Square Lake Test Well #1, Umiat #2, Umiat #9, and Umiat Test Well #11 wells.

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Bentonite Major Element Geochemistry: X-Ray Fluorescence Spectroscopy

Sample	Al ₂ O ₃ (%)	Ba (ppm)	CaO (%)	Cl (%)	Fe ₂ O ₃ (%)	K ₂ O (%)	MgO (%)	MnO (%)	Na ₂ O (%)	P ₂ O ₅ (%)	S (%)	SiO ₂ (%)	TiO ₂ (%)
Umiat 2 311 Residue	22.62	1158.35	1.88	0.04	4.07	1.03	2.85	0.02	2.48	0.17	-0.01	58.35	0.92
Umiat 11 2258	21.73	1374.00	0.43	0.02	3.63	1.36	2.37	0.01	2.94	0.07	0.01	64.49	0.57
Umiat 2 311 Whole	23.37	1161.27	3.58	0.03	4.23	1.09	2.81	0.03	2.23	0.18	0.01	57.67	0.94
Umiat 11 1682	20.24	1021.59	4.18	0.02	4.70	0.92	2.41	0.09	3.27	0.08	0.26	63.03	0.66
Umiat 11 391	18.71	413.63	0.51	0.01	4.02	0.18	2.54	0.00	3.07	0.01	-0.01	72.02	0.22
Umiat 11 1962	21.40	838.56	1.36	0.03	5.48	1.03	2.93	0.02	3.15	0.23	0.13	61.27	0.63
Umiat 11 345	19.67	773.63	0.72	0.01	4.96	0.21	2.49	0.00	3.30	0.01	0.04	68.80	0.35

Bentonite Trace Element Geochemistry: X-Ray Fluorescence Spectroscopy

Sample	Ag (ppm)	As (ppm)	Bi (ppm)	Br (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cs (ppm)	Cu (ppm)	Ga (ppm)	Ge (ppm)	Hf (ppm)	La (ppm)	Mn (ppm)	Mo (ppm)	Nb (ppm)	Nd (ppm)	Ni (ppm)
Umiat 2 311 Whole	-3.84	-10.49	-2.45	-1.90	0.62	91.59	9.73	106.94	2.77	15.28	28.50	0.11	5.85	43.54	218.77	1.58	5.88	32.04	30.19
Umiat 11 391	-1.64	-9.16	-1.64	-1.71	0.80	115.55	2.05	3.51	2.08	4.39	26.07	-0.35	7.00	57.82	18.07	0.48	7.85	51.20	2.41
Umiat 11 345	-2.89	-6.52	-0.94	-2.05	0.96	109.16	3.65	2.83	1.29	4.78	27.93	-0.19	7.28	48.78	21.06	1.23	12.47	49.98	12.25
Umiat 2 311 Residue	-4.84	-8.13	-2.05	-1.45	1.89	114.96	10.16	108.79	1.29	14.81	29.57	-0.19	6.45	57.56	147.21	1.06	5.41	45.32	32.13
Umiat 11 1962	-1.50	-5.95	-2.18	-1.96	2.80	74.57	5.97	21.21	5.43	8.08	24.85	-0.17	4.44	43.85	159.27	2.19	6.84	29.93	7.54
Umiat 11 1682	-3.11	-0.17	-2.00	-1.99	2.03	119.18	4.10	8.88	11.48	10.20	22.85	-0.20	5.87	68.52	660.78	4.13	8.93	58.09	4.64
Umiat 11 2258	-2.77	-6.81	-0.51	-1.57	-0.44	92.15	3.34	26.95	4.67	14.55	28.08	-0.09	10.23	45.56	60.14	2.40	11.77	36.61	10.23

Sample	Pb (ppm)	Rb (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Te (ppm)	Th (ppm)	Tl (ppm)	U (ppm)	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zn (ppm)	Zr (ppm)
Umiat 2 311 Whole	41.24	39.33	-3.92	10.65	-2.09	3.36	9.19	221.15	2.50	-6.41	35.39	7733.39	-4.10	10.51	73.13	0.62	16.30	3.86	70.30	216.7
Umiat 11 391	36.57	9.54	-1.81	10.75	-1.39	5.96	10.10	218.60	1.59	-2.85	25.51	1567.15	-4.21	9.91	4.31	0.70	44.18	5.31	42.74	200.7
Umiat 11 345	30.89	9.56	0.54	14.49	-1.53	9.91	7.19	331.84	-0.14	-3.73	25.50	2343.70	-2.82	12.02	10.67	1.88	38.56	2.83	77.54	282.5
Umiat 2 311 Residue	46.37	39.91	-1.02	12.40	-1.80	1.44	9.53	222.09	1.44	-0.50	35.99	7855.94	-3.97	13.90	76.80	-0.13	18.51	2.80	80.96	237.1
Umiat 11 1962	28.77	37.31	-1.78	8.10	-2.49	2.39	8.25	356.59	1.79	-1.86	20.13	5097.02	-4.29	8.53	49.63	0.37	15.87	3.30	88.00	188.7
Umiat 11 1682	24.63	46.48	-2.99	14.86	-1.36	7.74	7.04	361.31	1.62	-3.85	29.91	5291.84	-4.00	11.78	28.80	3.91	37.33	3.68	105.41	309.6
Umiat 11 2258	51.78	47.52	0.14	12.50	-1.23	3.73	9.98	255.87	1.73	-2.14	31.61	3725.19	-3.21	12.39	26.22	-0.81	36.08	4.65	91.96	326

Sandstone Trace Element Geochemistry: X-Ray Fluorescence Spectroscopy

Sample	Ag (ppm)	As (ppm)	Ba (ppm)	Bi (ppm)	Br (ppm)	Cd (ppm)	Ce (ppm)	Co (ppm)	Cr (ppm)	Cs (ppm)	Cu (ppm)	Ga (ppm)	Ge (ppm)	Hf (ppm)	La (ppm)	Mn (ppm)	Mo (ppm)	Nb (ppm)	Nd (ppm)	Ni (ppm)
Umiat 9 410	-6.15	-1.52	525.36	-2.36	-1.58	-3.69	58.75	18.13	179.90	3.99	17.71	14.47	1.00	4.84	33.09	224.38	5.93	15.89	27.26	51.4
Umiat 9 591	-5.57	-1.63	476.89	-2.04	-2.18	-5.43	59.72	14.38	111.39	9.49	34.99	14.31	0.62	3.40	22.62	639.19	3.85	12.29	24.35	46.3
Umiat 9 1080	-4.37	-6.47	416.32	-1.98	-1.27	-1.67	26.93	17.35	136.18	2.45	13.74	10.37	1.13	4.04	9.72	263.45	5.95	9.36	11.17	43.82
Umiat 9 699	-4.13	17.49	438.67	-2.90	-1.84	-1.57	46.58	15.57	167.62	4.00	19.38	11.47	1.47	4.96	11.80	218.67	6.05	11.72	22.69	36.69
Umiat 9 919	-5.44	-5.31	658.25	-2.67	-1.77	-2.49	21.97	13.13	105.02	1.12	10.54	7.36	0.38	3.02	6.08	540.85	4.62	6.55	7.06	32.64
Umiat 9 1150	-3.89	5.05	575.87	-3.70	-1.68	-2.04	50.28	17.08	131.37	7.84	21.10	14.95	0.85	5.53	18.01	236.84	5.09	12.97	20.90	45.76

Continued Sample	Pb (ppm)	Rb (ppm)	Sb (ppm)	Sc (ppm)	Se (ppm)	Sm (ppm)	Sn (ppm)	Sr (ppm)	Ta (ppm)	Te (ppm)	Th (ppm)	TiO2 (ppm)	Tl (ppm)	U (ppm)	V (ppm)	W (ppm)	Y (ppm)	Yb (ppm)	Zn (ppm)	Zr (ppm)
Umiat 9 410	12.43	71.76	-1.77	14.35	-1.95	-2.42	3.55	78.73	0.68	-5.41	12.71	9628.39	-4.63	7.58	134.19	1.32	28.68	4.30	101.32	271.2
Umiat 9 591	14.20	75.95	0.49	18.44	-1.17	4.88	-0.05	136.58	2.15	0.14	10.21	7997.23	-3.15	5.16	129.82	3.35	26.31	3.98	98.575	196.7
Umiat 9 1080	8.97	57.46	1.24	11.43	-1.85	-0.33	3.78	87.53	1.35	-1.24	6.36	6309.23	-3.92	4.37	103.14	1.35	18.31	4.69	75.054	198.9
Umiat 9 699	10.33	60.05	-0.50	9.44	-2.02	3.94	0.01	94.85	-0.99	2.43	7.66	8457.77	-4.79	4.31	135.12	-2.00	20.08	3.25	75.135	308.6
Umiat 9 919	4.17	44.51	3.93	21.84	-1.75	2.94	1.43	279.92	-1.49	0.84	4.30	4591.73	-3.38	3.29	73.70	-0.69	14.54	3.44	49.979	135
Umiat 9 1150	14.05	90.64	-3.10	12.77	-1.60	12.30	1.38	122.56	1.99	0.20	11.59	8099.60	-4.04	4.84	142.20	2.57	27.81	3.53	91.717	307.8

UM11-345 SAN#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
500	0.0115	73.01065	1.23884	0.44072	0.00822	0.21105	0.0036	85.40549	0.80891	0.0151	0.00295	0.00027	10.65453	1.1614	79.25	8.45
750	0.0284	30.54076	0.43178	0.64837	0.01006	0.06202	0.00131	59.88706	1.19022	0.01848	0.00285	0.00016	12.2445	0.44903	90.79	3.25
1000	0.0474	23.03402	0.34502	1.00661	0.01764	0.03403	0.00099	43.3571	1.84831	0.03242	0.00191	0.00023	13.0396	0.36906	96.53	2.66
1500	0.0958	18.42292	0.33338	0.9284	0.01678	0.02025	0.00053	32.11408	1.70461	0.03083	0.00132	0.00009	12.49461	0.30601	92.59	2.21
2000	0.1496	16.48898	0.27132	0.96406	0.01674	0.01337	0.00042	23.51693	1.77013	0.03075	0.00108	0.00009	12.59715	0.2658	93.33	1.92
2500	0.21	16.53061	0.28982	0.91414	0.01453	0.01276	0.00036	22.40179	1.67841	0.02669	0.00112	0.00007	12.8127	0.27579	94.89	1.99
3000	0.2684	14.5955	0.25229	0.99243	0.01699	0.00666	0.00028	12.94374	1.82226	0.03123	0.00109	0.00008	12.68935	0.24783	94	1.79
5000	0.4968	14.07138	0.19952	0.72006	0.01249	0.00469	0.00011	9.43986	1.32188	0.02294	0.0007	0.00007	12.72265	0.18584	94.24	1.34
9000	0.8034	14.46213	0.20881	0.6416	0.01108	0.00586	0.00012	11.62485	1.17778	0.02036	0.00039	0.00005	12.76048	0.19027	94.51	1.37
9001	1	14.26377	0.20535	0.62157	0.01044	0.00499	0.00012	10.00582	1.141	0.01917	0.00038	0.00005	12.81547	0.19029	94.91	1.37
Integrated		15.87701	0.10228	0.72849	0.00544	0.01083	0.00009	19.82411	1.33736	0.00999	0.00073	0.00003	12.71227	0.08811	94.17	0.88

UM11-391 BI#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0203	748.85129	9.40603	0.57051	0.00872	2.45798	0.04344	96.99036	1.04723	0.01602	0.03149	0.00228	22.54595	10.47456	163.78	72.74
500	0.0443	323.00231	3.58431	5.65562	0.08836	1.01577	0.01453	92.79229	10.4189	0.16343	0.03995	0.00119	23.37228	3.5394	169.51	24.5
700	0.0758	159.0748	1.54102	0.40884	0.00698	0.47681	0.00573	88.56892	0.75039	0.01281	0.03656	0.001	18.18583	1.48307	133.24	10.47
900	0.1166	110.15761	1.42821	0.31279	0.00487	0.30795	0.00489	82.60668	0.57406	0.00893	0.03247	0.00077	19.15913	1.13248	140.1	7.97
1100	0.1655	70.34806	0.91483	0.0664	0.00211	0.17682	0.00285	74.29794	0.12183	0.00388	0.02525	0.00058	18.07411	0.70376	132.45	4.97
1300	0.2134	46.67508	0.80847	0.04741	0.00145	0.10014	0.0016	63.42844	0.087	0.00267	0.02346	0.00054	17.05951	0.65667	125.27	4.66
1500	0.2592	41.99756	0.65124	0.09417	0.00217	0.08026	0.00117	56.49217	0.17279	0.00399	0.02897	0.00059	18.26052	0.5616	133.77	3.97
1750	0.3112	37.91312	0.63689	0.09244	0.00196	0.0687	0.00126	53.56494	0.16962	0.00359	0.02871	0.00058	17.59234	0.56286	129.05	3.98
2000	0.3686	35.47469	0.61543	0.0692	0.00143	0.06128	0.001	51.07233	0.12697	0.00262	0.02616	0.00058	17.34326	0.51138	127.28	3.62
2250	0.4133	33.10117	0.53995	0.05575	0.00185	0.05292	0.00102	47.27148	0.1023	0.0034	0.02336	0.00044	17.43878	0.48411	127.96	3.43
2500	0.4617	31.51864	0.48408	0.08511	0.00208	0.04768	0.001	44.72	0.15617	0.00382	0.02238	0.00043	17.40813	0.47241	127.74	3.35
3000	0.549	32.44614	0.58248	0.02735	0.001	0.04954	0.00092	45.15589	0.05018	0.00184	0.0224	0.00047	17.77885	0.51899	130.37	3.67
3500	0.6371	25.87705	0.46904	0.02231	0.00097	0.03163	0.00055	36.1551	0.04093	0.00179	0.01979	0.00043	16.50248	0.411	121.32	2.92
4000	0.8115	19.5607	0.26018	0.01729	0.00055	0.01616	0.00029	24.44639	0.03172	0.001	0.01448	0.00028	14.75656	0.21703	108.86	1.55
5000	0.9605	17.68924	0.33206	0.01798	0.00052	0.00942	0.00027	15.74719	0.033	0.00095	0.01487	0.00034	14.87885	0.31476	109.73	2.25
9000	1	18.20121	0.28389	0.03819	0.00155	0.01264	0.00085	20.53944	0.07008	0.00285	0.01512	0.00032	14.43957	0.34858	106.59	2.5
Integrated		58.95386	0.25342	0.2103	0.00187	0.14259	0.00093	71.47701	0.38593	0.00343	0.02192	0.00014	16.80943	0.26398	123.5	2.03

UM11-1682 BI#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0111	157.16371	2.67029	0.94185	0.02837	0.5096	0.00974	95.7843	1.72932	0.05212	0.02434	0.00157	6.62871	2.22412	49.71	16.45
500	0.0325	70.2417	0.77737	14.98638	0.19473	0.21805	0.00569	90.01229	27.79208	0.36499	0.01944	0.00075	7.08761	1.71253	53.11	12.64
700	0.0593	53.96235	0.64634	24.98179	0.3362	0.15719	0.00389	82.30848	46.66138	0.63923	0.02405	0.00077	9.71296	1.16385	72.39	8.5
900	0.1129	42.0306	0.5149	16.28837	0.21373	0.10585	0.00261	71.27462	30.23471	0.40134	0.0295	0.0005	12.20542	0.81626	90.5	5.9
1100	0.1786	32.81252	0.39948	19.1504	0.25109	0.07297	0.00151	60.95683	35.62009	0.47344	0.03205	0.00063	12.97509	0.50361	96.06	3.63
1300	0.2496	26.2232	0.34589	10.56448	0.15208	0.0458	0.00129	48.34015	19.53008	0.28325	0.03202	0.00053	13.63335	0.42862	100.8	3.08
1500	0.3268	24.78934	0.24833	7.62715	0.09379	0.03767	0.0009	42.42343	14.07057	0.17396	0.03223	0.00065	14.33305	0.32068	105.83	2.3
1750	0.418	22.1039	0.2819	2.37238	0.03376	0.02921	0.00128	38.21787	4.36029	0.06216	0.03006	0.00039	13.66083	0.42904	101	3.08
2000	0.4865	24.25814	0.25028	5.5103	0.05943	0.03672	0.00138	42.90935	10.15014	0.1099	0.03127	0.00055	13.88628	0.44473	102.62	3.19
2250	0.5438	23.53837	0.21763	3.13055	0.03008	0.03161	0.00149	38.62948	5.75685	0.05543	0.03182	0.00047	14.4594	0.473	106.73	3.39
2500	0.6001	21.38221	0.2175	4.89267	0.05525	0.02578	0.00141	33.78645	9.00851	0.10208	0.03227	0.00066	14.18734	0.45493	104.78	3.26
3000	0.6741	20.76257	0.2484	5.87287	0.07519	0.02366	0.00093	31.38818	10.82079	0.13911	0.03299	0.00061	14.28453	0.33668	105.48	2.41
3500	0.7408	19.14833	0.25879	4.67755	0.06373	0.01689	0.0018	24.08537	8.6111	0.11772	0.03207	0.00061	14.56202	0.57258	107.47	4.1
4000	0.7981	18.58565	0.23526	1.84955	0.02247	0.01562	0.0014	24.05576	3.3981	0.04134	0.03059	0.0006	14.11063	0.4577	104.23	3.29
5000	0.9521	17.59584	0.24563	2.52513	0.03539	0.01227	0.00054	19.4481	4.64153	0.06516	0.03078	0.00057	14.17518	0.26672	104.69	1.91
9000	1	17.69575	0.20789	3.12299	0.03528	0.01434	0.00192	22.52909	5.74292	0.06502	0.02191	0.00045	13.71635	0.59814	101.4	4.3
Integrated		26.57037	0.09035	6.93609	0.02765	0.04606	0.00039	49.12937	12.78941	0.05123	0.03043	0.00016	13.56794	0.12856	100.33	1.13

UM11-1962 BI#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.035	1056.44599	9.72531	0.05486	0.00278	3.4459	0.04579	96.38798	0.10067	0.00511	0.0267	0.00228	38.15949	11.6458	269.07	76.29
500	0.0934	319.49377	3.62424	0.10556	0.00153	1.0203	0.0147	94.37407	0.1937	0.00281	0.02746	0.00102	17.97415	3.29192	131.75	23.27
700	0.1773	156.63398	1.85312	0.47731	0.00688	0.46655	0.00665	88.00846	0.8761	0.01263	0.02781	0.00071	18.78559	1.43761	137.47	10.13
900	0.2871	86.34363	1.11361	1.42142	0.02168	0.22878	0.00348	78.18979	2.61073	0.03986	0.02819	0.00049	18.84417	0.76026	137.89	5.36
1100	0.4077	60.76327	0.74441	0.86832	0.01333	0.14332	0.00216	69.61398	1.59423	0.02449	0.028	0.00051	18.46585	0.53663	135.22	3.79
1300	0.4967	49.3976	0.54387	0.03945	0.00088	0.10692	0.00148	63.9906	0.07239	0.00161	0.02747	0.00042	17.77758	0.41032	130.36	2.9
1500	0.5749	44.30182	0.46271	0.04465	0.00132	0.08942	0.00123	59.67293	0.08192	0.00242	0.02734	0.00047	17.85422	0.36855	130.9	2.61
1750	0.6646	38.04342	0.36993	0.02838	0.00074	0.06741	0.0008	52.39766	0.05207	0.00135	0.0274	0.00042	18.09578	0.27977	132.61	1.98
2000	0.7416	33.79675	0.52468	0.02289	0.00097	0.05387	0.00069	47.1351	0.04199	0.00178	0.02743	0.00046	17.85121	0.43981	130.88	3.11
2250	0.7881	31.98437	0.43649	0.03228	0.00146	0.04681	0.00083	43.27923	0.05923	0.00269	0.02771	0.00046	18.12535	0.42035	132.82	2.97
2500	0.8225	31.20448	0.40579	0.04056	0.00154	0.04379	0.00105	41.50087	0.07442	0.00283	0.02811	0.00043	18.2375	0.42008	133.61	2.97
3000	0.87	29.93584	0.45663	0.05395	0.00127	0.04085	0.00069	40.34452	0.099	0.00233	0.02867	0.00057	17.84133	0.38712	130.81	2.74
3500	0.9048	30.53376	0.41896	0.05364	0.00183	0.04452	0.00117	43.11679	0.09843	0.00335	0.02798	0.00047	17.35234	0.46057	127.35	3.26
4000	0.9292	28.34027	0.32551	0.06813	0.00295	0.03484	0.00113	36.34379	0.12502	0.00541	0.02987	0.00051	18.02231	0.41339	132.09	2.92
5000	0.9629	25.64658	0.3257	0.13828	0.0023	0.02664	0.00078	30.68125	0.25375	0.00422	0.03088	0.00049	17.75904	0.35003	130.23	2.48
9000	1	19.32533	0.26034	0.0614	0.00166	0.01371	0.00061	20.96963	0.11267	0.00304	0.02613	0.00056	15.25007	0.28863	112.39	2.06
Integrated		106.7573	0.37348	0.33637	0.0021	0.2978	0.00172	82.4279	0.61733	0.00385	0.02783	0.00017	18.75874	0.4839	137.29	3.52

UM11-2258 BI#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0228	87.11336	1.44508	0.08746	0.00341	0.27241	0.00474	92.42923	0.16048	0.00625	0.05644	0.00115	6.59331	1.46857	49.45	10.87
500	0.0556	87.43382	1.63178	0.14319	0.00411	0.26995	0.00555	91.25123	0.26276	0.00754	0.04771	0.0011	7.64756	1.7071	57.24	12.58
700	0.0894	43.06391	0.56261	0.0379	0.00318	0.10249	0.00145	70.36747	0.06955	0.00583	0.05069	0.00086	12.75246	0.50395	94.46	3.64
900	0.1417	26.23573	0.3147	0.02386	0.00113	0.04008	0.00085	45.18414	0.04379	0.00207	0.05622	0.00085	14.3653	0.3323	106.06	2.38
1100	0.2104	22.4945	0.2844	0.03894	0.00147	0.0252	0.00067	33.13765	0.07145	0.0027	0.05458	0.00068	15.0209	0.30414	110.75	2.18
1300	0.2887	19.46476	0.23702	0.06	0.00141	0.01386	0.00053	21.05437	0.11009	0.00259	0.05476	0.0008	15.34378	0.26154	113.06	1.87
1500	0.3533	18.78337	0.23321	0.12121	0.00324	0.01221	0.00066	19.18236	0.22242	0.00594	0.05411	0.00069	15.15758	0.28269	111.73	2.02
1750	0.4233	18.94437	0.24906	0.40347	0.00477	0.0125	0.00043	19.34577	0.74051	0.00876	0.05299	0.00076	15.25984	0.25367	112.46	1.81
2000	0.5035	19.05012	0.26347	1.58635	0.02306	0.01403	0.00056	21.10511	2.914	0.0424	0.05044	0.00082	15.023	0.27961	110.77	2
2250	0.5685	17.56242	0.25266	2.11398	0.03128	0.00954	0.00064	15.08684	3.88466	0.05757	0.04938	0.00082	14.90988	0.29396	109.96	2.1
2500	0.6267	17.13077	0.2136	0.42225	0.00548	0.00784	0.0005	13.3517	0.77501	0.01006	0.04826	0.00069	14.82221	0.24375	109.33	1.74
3000	0.7208	16.76938	0.24317	0.03365	0.00079	0.00601	0.00038	10.58597	0.06175	0.00145	0.04825	0.00074	14.96798	0.25402	110.37	1.82
3500	0.8005	16.73631	0.22819	0.03332	0.00169	0.00681	0.00048	12.02644	0.06113	0.00311	0.04635	0.00072	14.69774	0.25428	108.44	1.82
4000	0.8689	16.60122	0.22925	0.05199	0.0011	0.00638	0.00056	11.35543	0.0954	0.00202	0.04838	0.00082	14.6903	0.27049	108.39	1.94
5000	0.9729	16.95407	0.25861	0.06289	0.00156	0.00698	0.0004	12.16264	0.1154	0.00287	0.0439	0.00073	14.86658	0.26869	109.65	1.92
9000	1	18.73992	0.16704	0.08754	0.00314	0.01313	0.00159	20.70235	0.16064	0.00576	0.04289	0.00071	14.83768	0.49369	109.44	3.53
Integrated		23.27621	0.09027	0.36053	0.00204	0.02994	0.00023	37.9263	0.66169	0.00374	0.05008	0.00021	14.43365	0.09825	106.55	0.98

SQ1-257 GL#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0016	64.89006	8.41683	-0.39815	0.48919	0.13165	0.12412	60.03016	-0.73035	0.89709	-0.00896	0.01822	25.91729	37.04414	187.04	253.95
500	0.0042	40.55807	5.12	0.19476	0.23463	0.1023	0.05919	74.54913	0.35741	0.43063	0.00145	0.00826	10.31624	17.88635	76.79	130.34
750	0.0286	16.85776	0.37267	0.04836	0.03071	0.01156	0.00494	20.28195	0.08873	0.05635	0.00043	0.00094	13.41546	1.50166	99.23	10.81
1000	0.0708	18.12552	0.25991	0.07493	0.01356	0.01746	0.00359	28.47485	0.1375	0.02489	0.00091	0.00061	12.94375	1.08034	95.84	7.79
1500	0.1605	20.31068	0.40777	0.07814	0.00636	0.02385	0.00237	34.71474	0.14339	0.01168	0.00192	0.00029	13.24123	0.75458	97.98	5.43
2000	0.2466	16.98027	0.27847	0.07583	0.00856	0.01183	0.00177	20.59009	0.13914	0.0157	0.0016	0.00036	13.46115	0.57327	99.56	4.13
2500	0.3761	14.70354	0.22903	0.09611	0.00554	0.0066	0.00137	13.23937	0.17637	0.01016	0.0009	0.00017	12.73198	0.45532	94.31	3.29
3000	0.521	15.24808	0.26248	0.11196	0.00447	0.00723	0.00116	13.97643	0.20545	0.0082	0.00115	0.00019	13.09243	0.41769	96.91	3.01
4000	0.6864	14.79437	0.25456	0.20628	0.00595	0.00674	0.00098	13.36787	0.37856	0.01091	0.00071	0.00016	12.79281	0.37241	94.75	2.69
5000	0.8467	14.82621	0.28577	0.21097	0.00671	0.00647	0.00094	12.79795	0.38716	0.01231	0.00083	0.00015	12.90479	0.38072	95.55	2.75
6000	0.9515	14.18218	0.24863	0.15742	0.00699	0.0029	0.00175	5.97078	0.28888	0.01282	0.00145	0.00018	13.30895	0.56946	98.47	4.1
9000	1	14.42617	0.24334	0.20413	0.01773	0.00316	0.00269	6.37109	0.3746	0.03254	0.00192	0.00043	13.4812	0.82953	99.71	5.97
Integrated		15.79202	0.09731	0.14075	0.00263	0.00916	0.00057	17.10177	0.25827	0.00482	0.00113	0.00009	13.06799	0.18966	96.73	1.5

GU1-736 PL#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power	Cumulative	40Ar/39Ar	+/-	37Ar/39Ar	+/-	36Ar/39Ar	+/-	% Atmospheric	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age	+/-
(mW)	39Ar	measured		measured		measured		40Ar							(Ma)	(Ma)
500	0.1174	413.69074	3.44286	211.68627	3.07223	1.40878	0.01988	96.41755	456.68821	7.793	0.01185	0.00145	17.42423	6.07748	127.86	43.05
750	0.2881	111.74724	1.89714	198.06493	3.22608	0.39867	0.00622	90.83198	422.52284	8.00123	0.00871	0.00059	11.90837	2.34617	88.35	16.99
1000	0.3861	80.45416	1.26491	235.80684	3.81515	0.3002	0.00471	86.1276	519.12273	10.07709	0.0108	0.00043	13.3868	1.58794	99.03	11.43
1500	0.4556	80.58219	1.01094	267.39558	3.79063	0.30956	0.00516	86.1901	604.8539	10.57063	0.01199	0.00083	13.7149	1.89071	101.39	13.59
2000	0.578	48.87929	0.70587	194.58829	3.00603	0.1902	0.00452	82.21144	413.92474	7.4131	0.01143	0.00057	10.07487	1.51248	75.03	11.03
2500	0.6481	50.85938	0.65801	273.20022	3.99919	0.2146	0.0057	80.44365	621.12305	11.26578	0.01149	0.00065	12.3182	2.04064	91.32	14.75
3000	0.7118	29.34262	0.41095	104.84209	1.38551	0.08926	0.00428	60.49489	207.75306	2.96503	0.00484	0.00069	12.507	1.37787	92.68	9.95
5000	0.9031	21.29615	0.32055	35.90889	0.57699	0.04236	0.00158	44.93791	67.60222	1.1145	0.00168	0.00024	12.01485	0.50724	89.12	3.67
9000	0.9935	18.94015	0.31173	26.28039	0.38269	0.03268	0.00302	39.61568	49.13279	0.72899	0.00218	0.00039	11.63522	0.94107	86.37	6.82
9001	0.9945	273.18302	60.29012	96.55848	20.36786	1.13096	0.37202	119.43412	190.13717	43.04227	0.02608	0.03746	-56.97019	93.6937	-495.39	937.61
9002	1	208.26904	9.96884	151.13867	7.18393	0.68814	0.06871	91.66604	310.45556	16.51986	0.01613	0.00804	19.42857	20.30461	142	142.71
Integrated		102.8521	0.52275	166.13989	0.98001	0.35658	0.00278	89.15385	345.36576	2.30802	0.00792	0.00024	12.63513	0.90091	93.61	6.53

GU1-1165 BI#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0118	5230.2803	76.58857	0.06655	0.00468	16.91429	0.22767	95.56265	0.12211	0.00858	0.07498	0.00835	232.09568	59.33086	1230.79	228.06
500	0.0455	677.18997	7.75008	0.08265	0.00116	2.14498	0.02036	93.6021	0.15166	0.00213	0.06559	0.00153	43.32656	7.42312	302.6	47.73
700	0.1094	246.34788	3.29156	0.12717	0.00156	0.74467	0.01004	89.33176	0.23336	0.00286	0.06065	0.00121	26.28017	3.0489	189.53	20.87
900	0.1872	105.87246	1.60217	0.04823	0.00107	0.28898	0.00473	80.67553	0.08849	0.00196	0.05793	0.0012	20.45425	1.37085	149.19	9.6
1100	0.272	66.67316	1.01185	0.01885	0.0005	0.16075	0.00246	71.27703	0.03458	0.00092	0.05641	0.00111	19.14224	0.78865	139.99	5.55
1300	0.3633	48.05003	0.77019	0.01918	0.00055	0.09978	0.00167	61.39789	0.03519	0.00102	0.05616	0.00107	18.53711	0.58657	135.72	4.14
1500	0.4391	40.1363	0.63747	0.01985	0.00044	0.07415	0.00126	54.62981	0.03643	0.00081	0.05521	0.00105	18.1967	0.49741	133.32	3.51
1750	0.529	35.90989	0.57729	0.02286	0.00049	0.05938	0.00106	48.89985	0.04195	0.0009	0.05483	0.00108	18.33513	0.45834	134.3	3.24
2000	0.612	32.32453	0.51601	0.03192	0.00089	0.04945	0.00081	45.24152	0.05856	0.00164	0.05406	0.001	17.68456	0.40291	129.7	2.85
2250	0.688	30.02495	0.48072	0.04371	0.00074	0.04169	0.00074	41.05488	0.0802	0.00135	0.05391	0.00104	17.68128	0.38826	129.68	2.75
2500	0.7612	25.64589	0.38401	0.04483	0.00069	0.02781	0.00039	32.07119	0.08226	0.00126	0.05352	0.00097	17.40133	0.31924	127.69	2.26
3000	0.8512	22.66105	0.35912	0.06594	0.00111	0.02097	0.00034	27.35705	0.121	0.00204	0.05226	0.00099	16.44085	0.30317	120.88	2.16
3500	0.9205	21.26953	0.32455	0.081	0.00136	0.01682	0.00034	23.37362	0.14863	0.00249	0.05234	0.00096	16.27625	0.29002	119.71	2.06
4000	0.9498	19.56367	0.35146	0.04415	0.00119	0.0134	0.00043	20.25849	0.08101	0.00219	0.04899	0.00099	15.57717	0.33078	114.72	2.36
5000	0.9771	18.33706	0.31793	0.06535	0.00135	0.0103	0.00047	16.60123	0.11992	0.00247	0.04889	0.00098	15.26882	0.31863	112.52	2.28
9000	1	18.03563	0.32053	0.15225	0.00324	0.01045	0.00048	17.07875	0.27939	0.00594	0.04895	0.00094	14.93235	0.3198	110.12	2.29
Integrated		136.77578	0.78238	0.04973	0.00026	0.38926	0.00207	84.11332	0.09125	0.00047	0.05523	0.00031	21.72518	0.78664	158.07	5.57

GU1-2840 BI#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0125	109.13816	2.32525	0.08515	0.00343	0.3438	0.00669	93.10483	0.15625	0.00629	0.01906	0.00075	7.52367	2.09476	56.32	15.44
500	0.0311	75.54401	1.40082	0.11009	0.00272	0.21556	0.00384	84.33957	0.20201	0.005	0.02788	0.00068	11.82679	1.33543	87.76	9.67
700	0.0603	36.99806	0.63282	0.41213	0.00705	0.0795	0.00124	63.45647	0.75643	0.01294	0.03099	0.00066	13.51348	0.55611	99.94	4
900	0.0973	25.88192	0.4498	0.11936	0.00189	0.03886	0.00069	44.37977	0.21903	0.00347	0.03331	0.00075	14.38028	0.38528	106.16	2.76
1100	0.1478	22.05782	0.39465	0.1333	0.00254	0.02561	0.00051	34.30314	0.2446	0.00466	0.03348	0.00061	14.47315	0.34342	106.83	2.46
1300	0.2037	19.5923	0.3303	0.1203	0.00226	0.0167	0.0004	25.1755	0.22075	0.00416	0.03436	0.00058	14.63886	0.3092	108.02	2.21
1500	0.2687	18.61664	0.32954	0.09621	0.00187	0.01333	0.00036	21.14716	0.17654	0.00343	0.03465	0.00069	14.65732	0.30933	108.15	2.22
1750	0.3577	17.73877	0.32262	0.08922	0.00207	0.01114	0.00023	18.54855	0.16372	0.0038	0.03451	0.00065	14.4252	0.29929	106.49	2.15
2000	0.4523	17.22047	0.30365	0.09322	0.0016	0.00924	0.00021	15.84606	0.17106	0.00293	0.03468	0.00069	14.46766	0.28671	106.79	2.05
2250	0.5517	16.85825	0.32726	0.09768	0.00207	0.00845	0.0002	14.78682	0.17923	0.0038	0.03459	0.00074	14.34114	0.30609	105.88	2.19
2500	0.6374	16.83192	0.30509	0.11775	0.00206	0.00786	0.0002	13.77305	0.21607	0.00378	0.03502	0.00071	14.48924	0.28941	106.94	2.07
3000	0.7555	16.4006	0.21504	0.10526	0.00181	0.00719	0.00015	12.91708	0.19316	0.00333	0.03505	0.00065	14.25732	0.19441	105.28	1.39
3500	0.845	16.20337	0.28892	0.11099	0.00193	0.00651	0.00018	11.84657	0.20366	0.00354	0.03501	0.00071	14.25877	0.27662	105.29	1.98
4000	0.8926	16.10583	0.26652	0.15347	0.00251	0.00655	0.00032	11.95752	0.28164	0.00461	0.03425	0.0006	14.15536	0.26749	104.55	1.92
5000	0.9669	15.51052	0.28734	0.14502	0.00307	0.00537	0.0002	10.16676	0.26612	0.00564	0.0341	0.00074	13.90835	0.27741	102.78	1.99
9000	1	18.28359	0.26884	0.61712	0.01018	0.01436	0.00051	22.96702	1.13282	0.0187	0.03207	0.0006	14.06765	0.27975	103.92	2.01
Integrated		20.46422	0.09705	0.13672	0.00071	0.02116	0.00012	30.54076	0.25089	0.00131	0.03405	0.00019	14.19503	0.08677	104.84	0.92

GU1-2845 PL#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power	Cumulative	40Ar/39Ar	+/-	37Ar/39Ar	+/-	36Ar/39Ar	+/-	% Atmospheric	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age	+/-
(mW)	39Ar	measured		measured		measured		40Ar							(Ma)	(Ma)
500	0.2284	1506.8979	8.36052	290.77097	3.77925	5.00892	0.06512	96.63493	671.39309	10.98129	0.06475	0.00487	63.81067	24.48702	429.73	146.74
750	0.3286	223.70167	3.35421	1053.95082	8.45509	1.00577	0.01582	94.02377	7563.44281	237.30827	0.15238	0.00348	52.28507	20.29442	359.3	126.45
1000	0.4564	262.40492	2.25009	1103.90566	9.44215	1.14039	0.01554	93.74601	9189.94303	356.63917	0.22419	0.00602	74.4553	18.45976	492.41	106.84
1500	0.6607	285.63835	2.85449	981.31281	9.79344	1.17347	0.01636	93.08246	5865.39643	190.6828	0.14261	0.0041	64.36362	12.78702	433.04	76.48
2000	0.7328	316.1236	2.96601	1179.84763	11.04266	1.32485	0.01651	93.07821	12980.76715	728.48216	0.37458	0.00725	131.20165	24.45068	794.15	119.72
2500	0.8044	119.67323	1.89617	1033.99954	18.11864	0.66901	0.01014	93.97707	7032.71804	456.80172	0.16749	0.00407	26.71623	9.16468	192.51	62.64
3000	0.8849	71.43579	0.99242	525.73495	8.10141	0.34107	0.00939	80.44067	1534.3141	37.60557	0.05802	0.00244	22.21776	4.14214	161.5	28.8
5000	0.973	73.13827	1.01363	546.73503	8.80818	0.34898	0.00775	79.39878	1634.14832	42.88563	0.09783	0.00255	24.53808	3.36345	177.56	23.18
9000	0.9995	59.99065	4.30719	12.68789	0.72887	0.11975	0.0311	57.26845	23.49102	1.36166	0.02301	0.00647	25.85402	9.88914	186.61	67.81
9001	1	800.98446	1744.89473	46.44072	101.41057	1.50259	3.69991	54.95788	88.10181	198.90768	-0.16087	0.41812	373.00078	1004.99428	1704.42	2971.06
Integrated		360.49525	1.47194	931.27419	3.72418	1.41173	0.00907	94.4284	4991.69647	58.31342	0.14066	0.00174	58.67241	7.17414	398.67	43.8

GU2-1397 BI#L1

Weighted average of J from standards = 4.215e-03 +/- 2.776e-05

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0183	73.2399	2.1046	0.04273	0.06314	0.19969	0.01451	80.59788	0.0784	0.11585	0.01233	0.00212	14.20476	4.18552	104.91	30.03
500	0.0233	102.88813	9.89131	-0.11618	0.22831	0.27419	0.06726	78.78188	-0.21316	0.41884	0.00956	0.0102	21.82284	19.36497	158.75	134.85
750	0.0359	83.61474	3.60648	0.77379	0.09219	0.25806	0.02324	91.15774	1.42057	0.16934	0.03055	0.00295	7.39485	6.4249	55.37	47.38
1000	0.0608	64.62586	1.67622	0.12103	0.03687	0.19157	0.01175	87.61873	0.22208	0.06767	0.02736	0.00276	7.99851	3.31902	59.82	24.42
1250	0.0732	30.434	2.37046	0.34111	0.09146	0.10369	0.02615	100.68872	0.62603	0.1679	0.0069	0.00366	-0.20945	7.85388	-1.59	59.77
1500	0.0945	27.45438	1.16619	0.21192	0.04261	0.04992	0.01209	53.72857	0.3889	0.0782	0.01054	0.00214	12.69169	3.71123	94.02	26.79
1750	0.113	31.61663	1.64506	0.13848	0.04842	0.06341	0.01338	59.28913	0.25412	0.08887	0.01332	0.0022	12.86057	4.10149	95.24	29.58
2000	0.1384	34.9334	1.16342	0.01627	0.00645	0.05606	0.00862	47.45384	0.02985	0.01183	0.01605	0.00235	18.34077	2.67385	134.34	18.87
2500	0.1763	30.34656	0.71655	0.01431	0.0046	0.04724	0.0067	46.04356	0.02626	0.00843	0.01385	0.00078	16.35806	2.05136	120.29	14.59
3000	0.2409	26.10801	0.47985	0.11119	0.02041	0.04626	0.00415	52.38825	0.20403	0.03746	0.01787	0.00104	12.41732	1.26045	92.04	9.11
4000	0.5685	25.41297	0.50414	0.05714	0.00367	0.04295	0.00108	49.98312	0.10485	0.00673	0.01416	0.00042	12.69643	0.45886	94.05	3.31
5000	0.8003	21.22698	0.38063	0.07252	0.00616	0.02633	0.00115	36.67034	0.13307	0.01131	0.02379	0.00065	13.42485	0.43388	99.3	3.12
9000	1	18.40759	0.29455	0.03301	0.00603	0.01696	0.00144	27.25483	0.06057	0.01107	0.03133	0.00062	13.36934	0.48988	98.9	3.53
Integrated		26.70789	0.22909	0.07451	0.00379	0.04632	0.00102	51.28865	0.13673	0.00695	0.02039	0.00029	12.99599	0.33106	96.21	2.47

UM2-C2-311 BI#1

Weighted average of J from standards = 3.730e-03 +/- 1.543

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0125	100.39884	3.40337	0.45193	0.01959	0.33835	0.0116	99.57617	0.82949	0.03596	0.04382	0.00175	0.42553	3.41221	2.86	22.93
600	0.0295	44.43675	2.95334	1.68725	0.11772	0.13297	0.00956	88.1705	3.09956	0.21651	0.04477	0.00343	5.2594	2.90366	35.05	19.16
900	0.0711	30.37039	1.85919	3.2184	0.19776	0.06126	0.00403	58.78829	5.91878	0.36452	0.0423	0.00294	12.53243	1.68128	82.42	10.81
1200	0.142	22.64359	1.33662	1.47404	0.08817	0.02943	0.00179	37.92427	2.70747	0.16212	0.03623	0.00227	14.05238	1.16194	92.17	7.43
1500	0.2533	19.58889	0.96262	0.30961	0.01607	0.01622	0.00095	24.37838	0.56822	0.0295	0.03391	0.00191	14.79422	0.87583	96.9	5.59
2000	0.3978	18.99977	0.64965	0.22177	0.00963	0.01334	0.00058	20.69102	0.40699	0.01768	0.03425	0.00167	15.04733	0.55399	98.52	3.53
2500	0.5881	18.63328	0.53768	0.18706	0.00696	0.00987	0.00041	15.59674	0.34327	0.01277	0.03422	0.00135	15.7041	0.48533	102.7	3.09
3000	0.8378	17.55544	0.34362	0.12907	0.00252	0.00568	0.00017	9.5219	0.23685	0.00463	0.03361	0.00077	15.8584	0.33154	103.68	2.11
5000	0.9439	16.71986	0.51387	0.04605	0.00144	0.0046	0.00024	8.12114	0.0845	0.00264	0.0327	0.0011	15.33523	0.49806	100.35	3.17
9000	1	16.77004	0.47072	0.0274	0.0011	0.00431	0.00034	7.59707	0.05028	0.00202	0.03169	0.00104	15.46886	0.46168	101.2	2.94
Integrated		20.45252	0.24929	0.41373	0.00862	0.0189	0.00031	27.17863	0.75936	0.01582	0.03451	0.00052	14.87653	0.22403	97.43	1.48

UM2-C2-311 BI#2

Weighted average of J from standards = 3.730e-03 +/- 1.543

Laser Power (mW)	Cumulative 39Ar	40Ar/39Ar measured	+/-	37Ar/39Ar measured	+/-	36Ar/39Ar measured	+/-	% Atmospheric 40Ar	Ca/K	+/-	Cl/K	+/-	40*/39K	+/-	Age (Ma)	+/- (Ma)
300	0.0245	53.14155	3.35258	2.28169	0.13508	0.17192	0.0105	95.29582	4.19334	0.24866	0.03193	0.00243	2.50251	3.28797	16.76	21.92
600	0.067	24.83539	1.65455	2.90005	0.172	0.04301	0.00282	50.27155	5.33211	0.31689	0.03528	0.00229	12.36083	1.50045	81.32	9.65
900	0.1411	20.43266	1.25622	1.9435	0.10886	0.02025	0.00123	28.54749	3.57095	0.20028	0.03373	0.00207	14.59849	1.14506	95.66	7.31
1200	0.2738	18.65038	0.96392	0.69912	0.03394	0.01219	0.00071	19.03801	1.28342	0.06235	0.03293	0.00183	15.08313	0.89576	98.75	5.71
1500	0.392	18.11299	0.72286	0.42408	0.01846	0.00955	0.0005	15.41019	0.77835	0.0339	0.03285	0.00147	15.30121	0.67606	100.13	4.3
2000	0.5861	17.49564	0.44842	0.07072	0.00251	0.0064	0.00027	10.80191	0.12977	0.00461	0.03333	0.00115	15.58006	0.41841	101.91	2.66
2500	0.826	17.31553	0.34898	0.05897	0.00133	0.00472	0.00016	8.04809	0.1082	0.00244	0.03409	0.00089	15.89532	0.33544	103.91	2.13
3000	0.9348	16.90369	0.53321	0.04631	0.00135	0.00453	0.00036	7.91431	0.08498	0.00248	0.03389	0.00117	15.53904	0.52342	101.65	3.33
5000	0.9912	16.76691	0.61235	0.06718	0.00291	0.00524	0.00043	9.21823	0.12327	0.00534	0.03248	0.00123	15.19506	0.59671	99.46	3.8
9000	1	22.83849	0.74537	0.04112	0.00688	0.01987	0.00255	25.73059	0.07545	0.01263	0.03996	0.00177	16.94045	0.99461	110.54	6.3
Integrated		19.02537	0.24962	0.50353	0.00971	0.01364	0.00028	20.99682	0.92423	0.01783	0.03355	0.00049	15.01253	0.23547	98.3	1.55