

**Table S6.** LA-ICPMS U-Pb geochronologic analysis

677-187 Fenghuoshan Tuff

92.85386° E, 34.611° N

Spot #	U ppm	Th ppm	Pb* ppm	Th/U	Corrected isotope ratios											Apparent ages (Ma)										
					<sup>206</sup> Pb/ <sup>204</sup> Pb	<sup>208</sup> Pb*/ <sup>232</sup> Th	±2σ (%)	<sup>206</sup> Pb*/ <sup>207</sup> Pb*	±2σ (%)	<sup>207</sup> Pb*/ <sup>235</sup> U*	±2σ (%)	<sup>206</sup> Pb*/ <sup>238</sup> U*	±2σ (%)	error corr.	<sup>238</sup> U*/ <sup>206</sup> Pb*	±2σ (%)	<sup>207</sup> Pb*/ <sup>206</sup> Pb*	±2σ (%)	<sup>208</sup> Pb*/ <sup>232</sup> Th	±2σ (%)	<sup>207</sup> Pb*/ <sup>206</sup> Pb*	±2σ (%)	<sup>207</sup> Pb*/ <sup>235</sup> U*	±2σ (%)	<sup>206</sup> Pb*/ <sup>238</sup> U*	±2σ (%)
1	350.63	301.17	0.83	0.86	61.20	0.00	8.33	20.52	10.96	0.06	11.47	0.01	3.36	0.29	111.06	3.36	0.05	10.96	70	6	135	258	60	7	58	2
2	517.86	944.77	3.31	1.82	113.05	0.00	6.78	19.81	10.05	0.06	11.68	0.01	5.97	0.51	110.05	5.97	0.05	10.05	69	5	217	233	62	7	58	3
3	137.03	134.12	2.49	0.98	164.13	0.03	36.12	4.84	18.00	0.45	25.38	0.02	17.89	0.70	64.02	17.89	0.21	18.00	567	202	2880	292	374	79	100	18
4	127.43	136.48	0.46	1.07	65.58	0.00	10.72	21.15	25.01	0.06	25.40	0.01	4.46	0.18	106.30	4.46	0.05	25.01	69	7	63	596	60	15	60	3
5	446.43	639.15	4.34	1.43	325.89	0.00	6.72	15.28	17.67	0.09	17.97	0.01	3.30	0.18	101.09	3.30	0.07	17.67	94	6	789	371	87	15	63	2
6	219.93	213.41	-2.07	0.97	22.04	0.00	10.89	23.90	18.98	0.06	19.69	0.01	5.24	0.27	100.06	5.24	0.04	18.98	83	9	-236	479	57	11	64	3
7	282.26	251.96	2.33	0.89	297.13	0.00	8.77	21.50	10.82	0.06	11.51	0.01	3.91	0.34	113.87	3.91	0.05	10.82	68	6	25	260	56	6	56	2
8	208.52	263.90	1.87	1.27	664.86	0.00	6.40	21.60	16.77	0.06	17.38	0.01	4.57	0.26	109.80	4.57	0.05	16.77	69	4	14	403	57	10	58	3
9	64.45	65.95	0.12	1.02	33.12	0.01	16.19	6.18	51.94	0.22	52.34	0.01	6.49	0.12	100.20	6.49	0.16	51.94	146	24	2475	877	204	97	64	4
10	301.83	271.33	2.89	0.90	233.14	0.01	12.88	12.41	23.87	0.12	24.74	0.01	6.51	0.26	96.00	6.51	0.08	23.87	112	14	1211	470	111	26	67	4
11	185.27	168.08	0.69	0.91	52.55	0.00	9.36	21.75	21.78	0.06	22.11	0.01	3.80	0.17	110.84	3.80	0.05	21.78	79	7	-4	525	56	12	58	2
12	142.24	137.69	0.35	0.97	36.34	0.00	14.32	12.88	16.31	0.10	16.77	0.01	3.88	0.23	106.92	3.88	0.08	16.31	90	13	1138	325	97	15	60	2
13	305.11	224.42	1.67	0.74	64.82	0.00	8.67	16.81	10.69	0.08	11.54	0.01	4.35	0.38	106.67	4.35	0.06	10.69	88	8	586	232	75	8	60	3
14	176.64	279.13	0.32	1.58	37.64	0.00	9.28	20.07	17.79	0.07	18.36	0.01	4.54	0.25	104.03	4.54	0.05	17.79	81	7	186	414	65	12	62	3
16	245.71	179.99	0.88	0.73	40.22	0.00	9.93	21.84	13.36	0.06	14.17	0.01	4.74	0.33	109.51	4.74	0.05	13.36	66	7	-11	323	57	8	59	3
17	251.95	497.24	1.60	1.97	263.08	0.00	7.37	20.73	13.12	0.06	13.90	0.01	4.60	0.33	105.32	4.60	0.05	13.12	76	6	113	310	62	8	61	3
18	285.85	381.73	1.69	1.34	87.04	0.00	8.52	22.06	20.93	0.06	21.39	0.01	4.39	0.21	106.23	4.39	0.05	20.93	70	6	-	-	58	12	60	3
19	615.51	515.89	4.77	0.84	257.66	0.00	5.71	20.09	7.84	0.06	8.67	0.01	3.71	0.43	111.12	3.71	0.05	7.84	74	4	184	182	61	5	58	2
20	138.54	103.20	0.47	0.74	25.16	0.00	12.76	18.36	20.02	0.07	20.74	0.01	5.41	0.26	109.59	5.41	0.05	20.02	77	10	390	449	67	14	59	3
21	156.17	129.69	1.19	0.83	279.20	0.00	11.06	23.49	19.73	0.05	20.17	0.01	4.18	0.21	114.23	4.18	0.04	19.73	67	7	-192	494	51	10	56	2
22	127.19	163.33	0.79	1.28	69.96	0.01	10.10	12.57	30.77	0.12	30.98	0.01	3.65	0.12	94.40	3.65	0.08	30.77	115	12	1185	608	112	33	68	2
23	244.37	253.43	1.70	1.04	103.70	0.00	7.75	17.16	11.77	0.08	12.44	0.01	4.05	0.33	105.27	4.05	0.06	11.77	86	7	540	257	75	9	61	2
24	185.11	190.80	1.20	1.03	33.22	0.00	16.33	14.78	35.98	0.11	37.87	0.01	11.82	0.31	87.87	11.82	0.07	35.98	96	16	858	747	102	37	73	9
25	147.22	136.17	1.14	0.92	545.80	0.00	9.25	19.87	50.73	0.06	50.85	0.01	3.40	0.07	109.46	3.40	0.05	50.73	70	6	210	1176	62	31	59	2
26	109.56	338.37	3.53	3.09	14.79	0.01	16.99	5.75	30.63	0.38	35.50	0.02	17.94	0.51	63.15	17.94	0.17	30.63	109	18	2595	511	327	99	101	18
27	169.63	131.20	1.37	0.77	5373.65	0.00	10.37	17.91	18.50	0.07	18.98	0.01	4.27	0.23	104.04	4.27	0.06	18.50	96	10	446	411	72	13	62	3
28	264.94	198.64	1.81	0.75	54.15	0.00	9.16	20.56	11.46	0.06	12.15	0.01	4.05	0.33	111.95	4.05	0.05	11.46	74	7	130	270	59	7	57	2
29	196.90	213.58	1.47	1.08	191.48	0.00	10.03	26.26	17.09	0.05	17.65	0.01	4.41	0.25	104.00	4.41	0.04	17.09	69	7	-480	453	50	9	62	3
30	138.80	88.46	1.22	0.64	1643.00	0.00	15.47	17.26	33.22	0.08	33.66	0.01	5.40	0.16	104.12	5.40	0.06	33.22	82	13	528	728	75	24	62	3
31	129.03	137.89	0.87	1.07	24.98	0.00	9.46	23.79	35.31	0.06	35.72	0.01	5.38	0.15	100.42	5.38	0.04	35.31	76	7	-224	889	57	20	64	3
33	652.95	931.86	3.61	1.43	85.91	0.00	4.80	22.23	9.00	0.06	9.42	0.01	2.76	0.29	109.65	2.76	0.04	9.00	78	4	-56	219	56	5	59	2
34	204.23	181.76	1.68	0.89	48.91	0.01	21.31	18.42	22.61	0.08	23.38	0.01	5.92	0.25	94.72	5.92	0.05	22.61	116	25	383	508	77	17	68	4
35	348.42	497.79	3.09	1.43	83.15	0.00	23.62	21.18	21.63	0.08	23.49	0.01	9.17	0.39	79.92	9.17	0.05	21.63	94	22	60	515	80	18	80	7
36	66.93	96.16	-0.07	1.44	354.14	0.02	33.10	4.34	19.61	0.53	22.55	0.02	11.14	0.49	59.49	11.14	0.23	19.61	439	144	3055	314	434	80	107	12
37	160.65	151.71	1.31	0.94	108.38	0.00	13.87	23.80	18.76	0.05	19.29	0.01	4.51	0.23	105.43	4.51	0.04	18.76	65	9	-226	472	54	10	61	3
38	558.06	447.93	4.24	0.80	127.12	0.00	6.01	22.47	7.52	0.06	8.49	0.01	3.92	0.46	109.68	3.92	0.04	7.52	70	4	-83	184	55	5	59	2
39	235.49	205.67	1.73	0.87	40.25	0.00	8.64	17.85	13.74	0.07	14.39	0.01	4.27	0.30	114.06	4.27	0.06	13.74	79	7	453	305	67	9	56	2
40	181.68	178.23	1.29	0.98	24.46	0.00	7.62	25.67	22.04	0.05	22.24	0.01	2.95	0.13	104.89	2.95	0.04	22.04	74	6	-420	577	51	11	61	2
41	238.99	239.63	2.46	1.00	136.75	0.00	15.86	18.15	25.12	0.10	30.54	0.01	17.37	0.57	79.35	17.37	0.06	25.12	79	12	417	561	93	27	81	14
42	107.16	135.82	0.72	1.27	35.55	0.00	11.92	19.61	22.43	0.07	22.96	0.01	4.91	0.21	108.12	4.91	0.05	22.43	76	9	240	517	64	14	59	3
43	252.46	152.99	2.05	0.61	83.39	0.00	7.84	24.53	22.66	0.05	23.19	0.01	4.95	0.21	106.07	4.95	0.04	22.66	75	6	-303	579	52	12	60	3
44	127.80	75.30	1.19	0.59	164.77	0.00	14.40	28.35	27.32	0.05	27.96	0.01	5.98	0.21	99.92	5.98	0.04	27.32	84	12	-687	756	48	13	64	4
45	390.88	291.19	2.92	0.74	91.14	0.00	6.36	22.44	9.56	0.05	10.01	0.01	2.95	0.29	111.83	2.95	0.04	9.56	69	4	-80	234	54	5	57	2
46	96.65	169.38	0.77	1.75	25.24	0.01	10.72	3.94	19.14	0.55	22.71	0.02	12.21	0.54	63.19	12.21	0.25	19.14	253	27	3209	302	448	82	101	12
47	222.11	174.43	1.53	0.79	31.21	0.00	11.45	27.43	16.38	0.04	16.89	0.01	4.14	0.25	115.55	4.14	0.04	16.38	73	8	-597	445	43	7	56	2
48	111.04	91.92	1.21	0.83	44.33	0.00	15.44	16.39	27.78	0.08	28.27	0.01	5.25	0.19	103.75	5.25	0.06	27.78	85	13	639	598	79	22	62	3
49	246.30	166.08	1.84	0.67	82.68	0.00	8.96	22.58	14.21	0.06	14.94	0.01	4.61	0.31	110.36	4.61	0.04	14.21	81	7	-95	349	55	8	58	3
50	111.37	115.00	0.73	1.03	57.49	0.00	13.08	20.35	18.80	0.06	19.62	0.01	5.62	0.29	113.80	5.62	0.05	18.80	79	10	155	440	59	11	56	3
51	168.59	163.20	1.12	0.97	71.14	0.01	9.05	8.09																		

Table S6 continued. LA-ICPMS U-Pb geochronologic analysis  
677-187 Fenghuoshan Tuff

Concentrations (ppm)

P	Ti	Y	Zr	Nb	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	Th	U
191.48	75.73	622.97	356141.09	2.64	2.78	13.46	0.49	4.22	2.21	1.24	15.40	5.04	62.47	20.08	96.34	24.35	270.06	37.15	5784.87	0.50	96.16	66.93
207.83	62.62	897.35	353119.92	2.78	0.73	21.47	0.64	4.04	8.50	2.63	34.09	9.75	117.17	33.90	135.11	30.00	325.94	43.18	6132.95	0.47	338.37	109.56
219.03	22.29	1117.63	391860.49	2.00	0.41	13.64	0.06	4.37	6.87	2.57	33.74	10.84	118.05	41.52	171.89	45.04	498.50	58.55	5677.03	0.49	169.38	96.65
221.48	111.84	1174.42	297004.72	5.87	5.88	25.76	0.82	6.14	7.71	1.82	31.16	10.06	119.85	41.93	182.13	46.24	490.39	60.26	4912.17	1.50	134.12	137.03
371.65	35.18	998.04	456033.00	8.75	7.95	39.95	1.86	9.77	4.43	0.78	21.93	7.78	96.91	35.26	163.65	44.65	503.94	63.12	8413.85	3.74	239.63	238.99
383.73	9.67	3623.58	395847.69	4.01	0.24	38.34	0.47	5.61	14.31	3.47	76.65	25.32	338.82	128.14	565.31	137.24	1328.69	217.00	5556.61	1.13	497.79	348.42
426.87		752.97	489739.03	1.59	1.27	11.98	0.54	1.94	3.15	0.07	11.47	6.42	77.85	27.39	126.89	34.87	395.44	44.51	7777.35	0.60	70.29	336.63
380.57	9.98	1802.46	452546.37	6.70	0.21	38.32	0.10	4.17	6.26	2.44	43.57	14.78	186.68	67.27	284.56	73.04	794.10	91.34	8076.90	2.29	190.80	185.11
280.57	6.55	1642.25	473059.41	2.08		23.05	0.43	5.24	11.98	4.09	48.36	15.50	179.86	60.51	250.89	63.87	709.62	82.42	6866.04	0.72	163.33	127.19
412.16	23.88	1683.47	462665.49	2.59	5.10	25.52	2.12	14.55	11.95	1.79	53.15	16.11	186.58	63.78	259.74	62.93	649.56	69.91	7632.45	1.21	181.76	204.23
397.35	24.58	1437.42	442913.16	5.33	2.07	36.60	0.36	4.03	5.04	1.70	26.96	11.38	144.58	54.03	231.48	59.56	636.66	75.36	8212.45	2.24	163.20	168.59
11703.50	8.61	1468.29	460803.01	6.73	323.39	633.19	86.78	429.50	85.61	6.67	95.91	18.30	176.01	52.35	212.36	52.10	566.67	76.47	7915.10	2.94	271.33	301.83
309.34	34.73	1624.65	431539.87	6.19	1.32	24.06	0.33	3.41	7.47	0.66	38.90	14.88	167.90	60.55	251.52	61.43	646.69	76.59	7719.26	2.78	479.16	449.20
310.57	2.32	867.51	450893.73	6.25		25.65		0.35	2.92	0.54	17.83	6.09	76.67	30.22	139.24	36.95	429.80	49.19	8586.00	2.70	75.30	127.80
298.35		1417.07	478248.98	3.18	0.58	22.05	0.06	2.85	7.31	1.87	29.43	11.71	137.61	49.67	227.96	59.50	708.59	83.12	7225.04	1.41	213.41	219.93
219.48	27.41	869.23	439528.06	1.56	0.46	8.94	0.12	2.15	4.21	1.53	19.93	7.54	90.10	32.80	135.97	35.83	404.88	51.69	5594.71	0.44	65.95	64.45
326.67	10.74	1068.65	488121.32	2.72		25.41	0.24	1.08	4.56	1.55	21.64	7.91	100.54	37.72	168.68	45.69	527.75	62.41	7612.02	1.42	137.89	129.03
853.16	55.85	3061.20	398135.51	7.26	7.13	61.18	2.08	19.49	24.98	6.97	84.83	28.82	317.03	110.22	462.47	120.83	1287.94	153.77	5703.62	2.19	639.15	446.43
488.01	10.37	1207.85	463204.40	2.37	0.01	17.03		1.37	3.69	1.72	24.49	9.18	116.55	44.31	200.01	54.25	630.73	72.45	7266.79	1.12	91.92	111.04
678.38	9.72	1877.59	483746.06	4.42	6.24	45.68	1.46	10.99	8.55	2.25	45.12	15.24	190.74	68.22	288.36	76.45	827.72	96.10	8349.53	1.94	213.58	196.90
653.61	13.91	2066.34	476394.82	3.73	2.72	41.35	0.95	9.79	11.97	4.36	56.94	17.17	212.82	77.76	326.59	84.84	932.60	110.64	7123.45	1.45	279.13	176.64
1517.94	5.36	1005.50	472152.83	4.17	15.07	51.48	4.27	19.24	5.29	1.25	23.70	7.70	96.53	35.79	163.53	44.52	515.01	62.89	8111.47	1.85	131.20	169.63
161.94	11.07	562.49	470233.83	2.60		13.09	0.01	1.21	0.56	8.90	3.48	49.73	20.07	92.72	25.93	312.85	40.36	7916.01	1.29	88.46	138.80	
389.17	9.21	2183.55	483807.64	2.88	0.01	36.47	0.27	7.18	14.50	5.86	63.19	20.47	238.27	82.50	339.15	83.91	883.86	102.48	7496.15	1.33	197.37	135.37
473.18		1375.80	475759.96	3.81	0.85	35.32	0.45	3.83	5.73	1.56	32.96	10.82	131.18	49.54	222.72	58.11	650.81	75.70	8492.98	2.31	178.23	181.68
398.30	7.00	1382.46	470158.06	4.12	0.92	24.87		2.46	5.35	1.57	30.17	10.71	129.69	51.00	220.88	61.28	697.84	83.70	7638.79	1.72	253.43	244.37
572.24	17.58	2201.85	478630.93	6.58	0.37	63.47	0.42	5.15	11.31	4.94	60.80	22.75	243.27	85.18	330.62	81.85	868.40	90.88	6850.70	2.50	497.24	251.95
372.35	10.64	1429.58	488764.31	3.63	2.31	26.94	0.24	6.00	8.06	1.87	35.39	11.08	148.43	52.24	226.60	56.42	623.39	74.63	8172.18	1.63	151.71	160.65
253.56	6.03	911.26	458620.94	6.07	0.43	22.12	0.16	0.97	2.77	0.60	13.10	5.68	80.11	31.33	145.52	44.04	547.97	66.35	7481.43	3.02	152.99	252.46
470.44	7.85	2147.20	473002.34	5.76		44.98	0.49	6.92	15.28	4.04	63.93	19.11	232.51	77.64	331.39	86.14	978.81	113.79	6522.05	1.83	381.73	285.85
418.38	3.45	1536.25	481938.76	3.13	0.20	20.49	0.10	4.14	8.34	2.63	44.45	12.44	154.18	57.73	240.26	63.46	700.34	81.15	7682.34	1.17	136.48	127.43
289.26	5.44	849.37	467926.23	6.54	1.51	31.77	0.48	1.90	2.79	0.38	13.72	5.60	77.31	30.71	140.94	39.56	460.85	55.68	8557.00	4.21	224.42	305.11
421.87	5.16	1552.99	481481.80	6.28	0.91	35.31	0.31	3.96	5.68	1.40	33.92	11.27	145.58	56.90	246.17	64.41	652.39	85.67	9136.95	2.62	137.69	142.24
1239.39	7.85	1019.66	477594.68	6.49	24.98	81.85	7.95	39.31	8.52	1.12	23.21	8.13	97.30	36.23	160.68	43.66	506.70	60.83	9025.14	2.49	157.46	192.18
382.11	13.67	1789.59	461397.14	2.77		25.75		3.48	8.44	3.62	43.08	14.99	182.13	66.71	277.78	71.81	780.26	88.76	6404.61	1.08	135.82	107.16
427.93	8.23	1361.65	471795.66	3.89	1.11	21.97	0.40	3.63	7.62	1.94	33.94	10.46	137.02	48.91	212.75	55.09	614.95	71.61	7277.72	1.37	136.17	147.22
261.02	8.33	922.05	458678.41	6.60		30.53		1.14	3.28	0.41	15.56	6.66	88.84	32.37	152.82	44.37	507.71	59.27	8147.31	2.85	179.99	245.71
320.63	4.96	857.17	475300.04	4.92	2.45	28.70	0.54	4.00	3.45	0.60	12.21	5.16	77.50	30.64	140.19	40.36	464.66	55.85	9251.09	2.32	103.20	138.54
400.34	5.31	2268.02	479045.66	14.62	0.27	67.06	0.28	3.33	8.08	2.21	42.54	16.50	208.26	80.37	367.68	100.70	1138.01	144.98	7980.14	5.74	931.86	652.95
726.35	7.04	3259.27	481404.03	10.98	0.18	25.35	0.41	6.08	14.86	3.65	68.55	24.58	306.80	116.56	519.30	139.59	1547.73	189.83	6028.53	3.59	447.93	558.06
507.53	11.29	2030.27	470531.79	5.89	1.38	51.44	0.58	7.07	9.60	3.28	48.42	16.35	210.67	73.47	312.48	78.51	856.16	98.05	8496.59	2.47	263.90	208.52
1800.77	7.72	1830.51	482124.63	15.28	50.76	147.90	13.09	64.32	19.93	2.09	48.65	15.62	186.22	65.76	292.34	75.11	830.53	97.10	8657.01	4.47	944.77	517.86
355.55	7.41	841.21	465043.52	3.93	2.51	25.62	0.60	3.82	2.97	0.61	16.51	5.30	76.99	28.38	136.28	39.52	473.72	57.00	8013.37	2.13	166.08	246.30
1031.61	11.61	1214.63	477398.49	6.68	15.64	67.84	4.17	20.40	9.01	1.33	27.46	8.57	114.20	43.91	192.25	51.39	561.47	65.63	8971.48	2.95	168.08	185.27
1164.58	3.23	1302.87	482381.18	8.71	36.17	103.33	9.04	43.22	11.84	1.00	26.50	9.64	122.21	45.56	206.81	58.93	662.48	80.05	8570.68	3.98	301.17	350.63
667.35		1440.16	479692.70	16.01	5.15	57.13	1.56	7.41	5.19	0.78	22.25	10.18	133.55	49.96	227.10	63.86	762.45	92.44	8343.56	7.44	515.89	615.51
750.93	4.09	1204.39	468734.19	9.01	6.19	50.12	1.51	8.02	5.73	0.54	23.37	8.33	110.68	43.51	195.59	56.92	661.88	75.95	8096.36	4.77	291.19	390.88
263.13	4.90	1022.91	488355.94	8.38	0.05	34.09		0.61	2.68	0.19	16.20	6.93	91.76	37.27	170.79	47.99	572.29	67.41	9251.15	4.24	198.64	264.94
318.99	4.52	1046.58	483489.10	3.67		26.12		1.34	2.87	1.36	21.12	7.46	102.92	38.39	164.99	43.95	481.82	57.03	8014.06	1.75	138.20	150.41
302.86	14.65	1183.50	488437.25	4.71	0.36	21.98	0.10	2.80	4.17	1.65	25.66	9.50	121.99	46.49	200.25	54.07	614.95	70.35	8027.17	1.58	151.28	142.82
610.65	13.98	964.35	476599.30	3.64	8.08	50.91	2.97	15.72	7.65	1.26	23.90	8.71	101.90	34.12	149.15	38.20	421.90</					

**Table S6 continued. LA-ICPMS U-Pb geochronologic analysis**

677-187 Fenghuoshan Tuff

*Cl chondrite normalizing values from Sun & McDonough*

														Ti-in-zircon				
La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	T(°C)	Ce/Ce*	Eu/Eu*	(Sm/Nd) <sub>cn</sub>	(Lu/Nd) <sub>cn</sub>
11.74	22.00	5.11	9.03	14.44	21.36	74.93	134.89	245.93	354.70	582.14	954.83	1588.59	1462.59	1012.20	2.61	0.48	1.60	161.93
3.08	35.08	6.70	8.65	55.57	45.31	165.90	260.64	461.31	598.93	816.40	1176.63	1917.32	1699.94	984.41	7.18	0.41	6.42	196.51
1.72	22.30	0.65	9.35	44.90	44.26	164.17	289.81	464.74	733.54	1038.59	1766.23	2932.36	2305.27	852.20	18.84	0.42	4.80	246.43
24.82	42.08	8.61	13.16	50.37	31.32	151.63	269.09	471.86	740.77	1100.49	1813.50	2884.66	2372.32	1073.24	2.52	0.31	3.83	180.29
33.54	65.28	19.54	20.92	28.96	13.45	106.74	208.04	381.54	622.96	988.80	1750.89	2964.37	2484.92	907.00	2.46	0.20	1.38	118.80
1.02	62.64	4.93	12.02	93.50	59.89	373.02	676.99	1333.95	2263.98	3415.79	5382.07	7815.83	8543.43	764.03	21.07	0.26	7.78	710.72
5.38	19.57	5.67	4.15	20.57	1.15	55.82	171.60	306.51	483.88	766.70	1367.30	2326.14	1752.30		3.54	0.03	4.96	422.53
0.90	62.61	1.01	8.94	40.93	41.99	212.03	395.08	734.97	1188.59	1719.41	2864.45	4671.17	3596.21	767.12	65.40	0.33	4.58	402.38
0.11	37.66	4.49	11.22	78.31	70.48	235.33	414.31	708.10	1069.04	1515.93	2504.83	4174.26	3244.75	727.41	16.38	0.45	6.98	289.32
21.51	41.70	22.31	31.16	78.12	30.86	258.65	430.75	734.55	1126.81	1569.45	2467.88	3820.94	2752.24	860.15	1.90	0.18	2.51	88.32
8.73	59.80	3.79	8.63	32.91	29.27	131.18	304.29	569.20	954.60	1398.69	2335.54	3745.08	2967.02	863.50	9.56	0.36	3.81	343.75
1364.52	1034.63	913.49	919.69	559.54	114.94	466.70	489.28	692.96	924.96	1283.13	2043.09	3333.38	3010.73	752.83	0.91	0.22	0.61	3.27
5.56	39.32	3.50	7.31	48.82	11.37	189.28	397.82	661.01	1069.73	1519.77	2409.13	3804.03	3015.21	905.37	8.68	0.10	6.68	412.60
	41.90	0.17	0.76	19.09	9.28	86.76	162.90	301.87	533.93	841.36	1448.95	2528.24	1936.50	641.68		0.18	25.13	2549.58
2.45	36.02	0.59	6.10	47.75	32.32	143.21	313.20	541.79	877.52	1377.39	2333.21	4168.15	3272.47		23.70	0.34	7.82	536.12
1.96	14.60	1.30	4.61	27.52	26.36	96.97	201.61	354.71	579.52	821.54	1405.26	2381.65	2034.89	876.37	8.96	0.42	5.97	441.18
0.06	41.52	2.55	2.32	29.81	26.73	105.30	211.61	395.82	666.49	1019.22	1791.60	3104.40	2457.23	774.30	31.74	0.40	12.85	1059.36
30.07	99.98	21.90	41.72	163.28	120.09	412.81	770.48	1248.13	1947.34	2794.38	4738.40	7576.13	6054.10	968.25	3.85	0.42	3.91	145.10
0.03	27.83	0.66	2.94	24.08	29.66	119.18	245.51	458.88	782.88	1208.49	2127.62	3710.15	2852.39	770.88	80.78	0.41	8.20	971.19
26.32	74.64	15.32	23.53	55.90	38.87	219.56	407.52	750.93	1205.25	1742.37	2998.15	4868.93	3783.38	764.53	3.58	0.28	2.38	160.82
11.47	67.56	9.97	20.96	78.23	75.25	277.09	459.15	837.89	1373.81	1973.32	3327.19	5485.87	4355.91	800.61	6.30	0.42	3.73	207.80
63.60	84.12	44.93	41.20	34.60	21.60	115.31	206.01	380.03	632.33	988.08	1745.75	3029.49	2475.97	709.67	1.55	0.29	0.84	60.10
0.00	21.40	0.15	0.81	7.90	9.62	43.32	93.14	195.77	354.57	560.24	1016.85	1840.31	1588.97	777.34	284.76	0.38	9.77	1964.40
0.05	59.60	2.84	15.38	94.74	100.97	307.48	547.28	938.07	1457.55	2049.24	3290.70	5199.17	4034.80	759.29	41.30	0.50	6.16	262.27
3.60	57.72	4.70	8.21	37.48	26.82	160.38	289.20	516.45	875.22	1345.72	2278.91	3828.31	2980.17		13.90	0.27	4.57	363.18
3.89	40.64	1.18	5.27	34.97	27.08	146.81	286.40	510.61	901.02	1334.63	2403.25	4104.94	3295.39	733.51	16.05	0.30	6.64	625.53
1.55	103.71	4.37	11.02	73.93	85.25	295.89	608.30	957.76	1504.95	1997.69	3209.73	5108.21	3578.12	825.65	35.03	0.46	6.71	324.58
9.76	44.02	2.47	12.85	52.70	32.31	172.20	296.33	584.36	922.96	1369.20	2212.59	3667.01	2938.02	773.38	7.19	0.29	4.10	228.63
1.81	36.14	1.63	2.08	18.08	10.38	63.74	151.87	315.38	553.56	879.28	1726.95	3223.33	2612.26	719.95	21.00	0.25	8.70	1256.64
0.13	73.49	5.17	14.81	99.86	69.69	311.08	510.94	915.40	1371.66	2002.37	3377.95	5757.72	4479.74	744.17	27.73	0.34	6.74	302.54
0.84	33.49	1.10	8.86	54.53	45.35	216.32	332.73	607.02	1019.95	1451.70	2488.82	4119.67	3194.88	672.66	34.65	0.33	6.15	360.47
6.36	51.91	5.02	4.06	18.23	6.50	66.77	149.68	304.38	542.52	851.61	1551.19	2710.89	2192.27	710.97	9.12	0.15	4.49	539.75
3.82	57.69	3.29	8.48	37.11	24.07	165.08	301.44	573.14	1005.35	1487.42	2525.94	3837.61	3372.73	706.28	16.22	0.24	4.38	397.83
105.39	133.74	83.73	84.18	55.68	19.34	112.97	217.37	383.09	640.09	970.89	1712.14	2980.58	2394.75	744.13	1.41	0.23	0.66	28.45
	42.08	1.66	7.44	55.13	62.47	209.64	400.82	717.06	1178.66	1678.42	2815.91	4589.79	3494.66	798.85		0.47	7.41	469.47
4.68	35.90	4.20	7.78	49.82	33.38	165.15	279.60	539.45	864.13	1285.49	2160.38	3617.37	2819.13	748.52	8.09	0.31	6.41	362.52
	49.89	0.54	2.43	21.43	7.12	75.71	178.19	349.76	571.90	923.41	1740.08	2986.55	2333.41	749.68		0.15	8.81	959.31
10.33	46.89	5.68	8.57	22.54	10.29	59.43	138.06	305.11	541.29	847.06	1582.57	2733.27	2198.82	702.83	5.86	0.25	2.63	256.53
1.15	109.58	2.97	7.14	52.79	38.06	207.01	441.31	819.93	1419.94	2221.64	3948.99	6694.15	5707.89	708.85	53.18	0.29	7.40	799.87
0.76	41.42	4.27	13.02	97.12	63.01	333.60	657.34	1207.89	2059.39	3137.79	5473.97	9104.30	7473.80	734.06	16.47	0.29	7.46	573.90
5.81	84.05	6.05	15.14	62.75	56.58	235.61	437.08	829.39	1298.14	1888.08	3079.01	5036.22	3860.08	779.32	14.16	0.38	4.14	254.97
214.18	241.66	137.77	137.72	130.25	36.04	236.72	417.76	733.15	1161.89	1766.39	2945.44	4885.46	3822.67	742.51	1.37	0.20	0.95	27.76
10.59	41.86	6.36	8.19	19.40	10.45	80.35	141.69	303.10	501.45	823.44	1549.95	2786.56	2244.10	738.77	4.94	0.21	2.37	274.11
65.98	110.85	43.87	43.69	58.89	22.88	133.64	229.15	449.60	775.71	1161.62	2015.39	3302.74	2583.96	782.10	2.02	0.24	1.35	59.15
152.63	168.85	95.21	92.54	77.40	17.32	128.94	257.74	481.16	804.89	1249.63	2310.95	3896.93	3151.65	667.16	1.36	0.17	0.84	34.06
21.72	93.35	16.42	15.88	33.91	13.44	108.28	272.30	525.77	882.73	1372.22	2504.12	4485.01	3639.36		4.90	0.19	2.14	229.24
26.13	81.89	15.89	17.17	37.46	9.31	113.73	222.86	435.76	768.81	1181.83	2232.12	3893.39	2990.19	686.59	3.90	0.12	2.18	174.20
0.22	55.70	0.29	1.31	17.53	3.34	78.84	186.37	361.25	658.46	1031.98	1882.14	3366.39	2653.97	701.81	219.14	0.07	13.37	2024.55
	42.67	0.64	2.88	18.77	23.40	102.78	199.56	405.21	678.34	996.91	1723.69	2834.22	2245.11	694.93		0.38	6.52	779.98
1.52	35.91	1.07	5.99	27.26	28.43	124.86	254.14	480.29	821.40	1209.96	2120.52	3617.35	2769.73	806.04	27.82	0.37	4.55	462.36
34.11	83.19	31.28	33.67	49.98	21.71	116.31	233.02	401.17	602.75	901.19	1498.18	2481.77	1875.17	801.20	2.54	0.26	1.48	55.70
2.67	56.95	0.45	3.82	22.30	8.84	94.58	200.43	418.87	696.96	1131.31	2029.21	3392.16	2783.84	757.93	36.52	0.15	5.84	728.91
13.79	58.39	8.87	9.85	30.63	10.50	103.24	242.84	449.21	805.60	1225.95	2216.99	3769.93	3005.43	694.48	5.15	0.16	3.11	305.17
3.46	67.94	2.05	6.50	28.46	30.95	150.14	279.38	550.86	931.57	1438.86	2462.18	4365.83	3370.20	675.93	24.68	0.35	4.38	518.57
0.64	58.58	0.59	2.28	25.26	8.98	102.43	212.95	391.08	711.67	1087.78	1949.28	3284.13	2567.35	693.50	95.30	0.14	11.07	1124.63
9.70	50.21	6.49	6.18	16.48	7.47	61.36	161.20	301.07	528.01	858.56	1622.98	2773.76	2323.63	735.51	6.20	0.19	2.67	376.06