

Late Mesoproterozoic (ca. 1.0 Ga) deposition of protoliths of the high grade Carvers Gap and Cloudland gneisses, Mars Hill terrane, NC-TN: New SHRIMP U-Pb ages for detrital zircon and monazite

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DATA REPOSITORY

U-Pb GEOCHRONOLOGY

Methods

Zircon and monazite were extracted from rock samples collected at outcrops by standard mineral separation techniques, including crushing, pulverizing, and processing over a Wilfley table. Further processing of the heavy mineral concentrate involved use of a Frantz magnetic separator and methylene iodide to obtain a non-magnetic fraction with a specific gravity of greater than 3.3 gm/cm³. Samples of detrital zircon were sprinkled onto double-stick tape to minimize laboratory bias; individual monazite grains were hand-picked. All mineral grains were mounted in epoxy, ground to about half-thickness using 2500-grit sandpaper, and polished sequentially using 6 µm and 1 µm diamond suspension. All mounted grains were imaged in reflected and transmitted light on a petrographic microscope. Using a scanning electron

microscope, zircon was imaged by cathodoluminescence (CL); monazite was imaged by backscattered electrons (BSE).

Instrumentation utilized for U-Pb geochronology are the USGS/Stanford SHRIMP-RG at Stanford University (zircon from CGgg and CLg pelite and quartzite, monazite from CLg) and SHRIMP II at the Research School of Earth Sciences, Australian National University, Canberra (monazite from CLg and zircon rims from CLg-pelite). Dating of zircon followed methods described in Williams (1998). Typically, a primary oxygen ion beam of about 20-25 μm diameter excavated a shallow (0.5-1 μm) pit. Measured $^{206}\text{Pb}/^{238}\text{U}$ ratios for zircon analyses were normalized to values for standard R33 (419 Ma; Black et al., 2004). Most analyses of detrital zircon involved cycling through the mass stations 4 times; a few analyses were replicated using 6 cycles to improve accuracy and precision. For monazite analyses, energy filtering was used to remove an isobaric interference at mass 204 (thought to be a NdThO molecule, Ireland et al., 1999). A primary beam spot size of 10-15 μm was used. Measured $^{206}\text{Pb}/^{238}\text{U}$ ratios for monazite analyses were normalized to values for standard 44069 (424 Ma; Aleinikoff et al., 2006). Analyses of monazite involved cycling through the mass stations 5 times.

For processing and plotting of detrital zircon data, the $^{207}\text{Pb}/^{206}\text{Pb}$ age was used for grains older than 1300 Ma; for younger grains the $^{206}\text{Pb}/^{238}\text{U}$ age was used. U-Pb age data that were more than 5% discordant were excluded from further consideration. Data were reduced using Squid and Squid 2 (Ludwig, 2001, 2009) and plotted using Isoplot 3 (Ludwig, 2003).

Figure DR1. U-Pb data for zircon and monazite from Carvers Gap granulite gneiss and Cloudland gneiss. A. Concordia plot for zircon from Carvers Gap granulite gneiss (sample CG-1-09). B. Concordia plot for zircon from Cloudland gneiss quartzite (sample B-1-09B). C. Concordia plot

for zircon from Cloudland gneiss pelite (sample B-1-09A). D. Concordia plot for monazite from Cloudland gneiss pelite (sample B-1-09A).

Figure DR2. Plots showing error bars representing individual ages and errors of analyses. Ages of detrital cores (red), metamorphic rims and grains (black), and unabraded, pointed grains (green) are distinguished to show that some metamorphic rims and grains formed in the provenance whereas others formed after deposition of the protoliths. A. Ages of zircon from Carvers Gap granulite gneiss (sample CG-1-09). B. Ages of zircon from Cloudland gneiss quartzite (sample B-1-09B). C. Ages of zircon from Cloudland gneiss pelite (sample B-1-09A). D. Ages of monazite from Cloudland gneiss pelite (sample B-1-09A).

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Table DR1. SHRIMP U-Th-Pb data for detrital zircon and monazite from high grade rocks of the Mars Hill terrane, Roan Mountain, NC-TN.

sample ¹	measured $\frac{^{204}\text{Pb}}{^{206}\text{Pb}}$	measured $\frac{^{207}\text{Pb}}{^{206}\text{Pb}}$	% common ^{206}Pb	in Ma										
				U (ppm)	Th/U	$\frac{^{206}\text{Pb}^2}{^{238}\text{U}}$	err ³	$\frac{^{207}\text{Pb}^2}{^{206}\text{Pb}}$	err ³	$\frac{^{207}\text{Pb}^4}{^{235}\text{U}}$	err ³ (%)	$\frac{^{206}\text{Pb}^4}{^{238}\text{U}}$	err ³ (%)	
Carvers Gap granulite gneiss (36°06'10" N, 82°06'47" W)														
CG-1-09-1.1c	0.000199	0.1104	0.31	240	0.68	1638	24	1761	42	4.33	2.7	0.292	1.5	0.54
CG-1-09-2.1c*	0.000057	0.0822	-0.06	71	1.59	1011.3	15.3	974	43	1.67	2.6	0.170	1.6	0.59
CG-1-09-3.1c	-0.000021	0.0825	-0.04	284	1.77	1140	16	1264	22	2.22	1.8	0.195	1.5	0.79
CG-1-09-4.1c	0.000218	0.0886	0.36	425	0.64	1210	16	1328	24	2.45	1.9	0.208	1.4	0.74
CG-1-09-5.1c	0.000474	0.0856	0.80	221	0.68	1176	17	1169	46	2.18	2.8	0.200	1.5	0.55
CG-1-09-6.1c	0.001579	0.1067	2.61	61	3.10	1362	49	1305	158	2.73	9.0	0.234	3.7	0.42
CG-1-09-7.1c*	---	0.0816	0.01	39	1.38	987.6	17.0	989	49	1.65	3.0	0.166	1.8	0.59
CG-1-09-8.1c	0.000000	0.0873	0.00	64	3.48	1362	75	1366	111	2.83	8.1	0.235	5.7	0.70
CG-1-09-9.1	0.000539	0.1022	0.87	290	0.48	1243	17	1522	43	2.82	2.7	0.216	1.5	0.54
CG-1-09-10.1c*	-0.000131	0.0895	0.10	92	1.59	976.5	14.5	1052	42	1.68	2.6	0.164	1.5	0.60
CG-1-09-11.1c	0.000068	0.0863	0.11	1285	0.95	1284	21	1324	10	2.60	1.7	0.221	1.7	0.95
CG-1-09-12.1c	0.000492	0.0976	0.80	48	2.46	1944	48	1441	107	4.26	6.1	0.340	2.4	0.40
CG-1-09-13.1c	0.000063	0.1041	0.10	524	0.82	1602	21	1683	12	4.03	1.5	0.283	1.3	0.89
CG-1-09-14.1c*	0.000087	0.0847	0.58	81	1.94	976.2	14.2	1075	36	1.70	2.3	0.164	1.5	0.64
CG-1-09-15.1c*	0.000248	0.0718	0.06	57	2.17	1008.0	15.7	920	63	1.62	3.5	0.169	1.6	0.47
CG-1-09-16.1c	0.000038	0.1007	0.06	378	0.57	1625	34	1627	16	3.96	2.3	0.287	2.1	0.93
CG-1-09-17.1c	0.000000	0.0804	0.00	115	1.04	1084	19	1207	35	2.04	2.6	0.184	1.8	0.72
CG-1-09-18.1c*	---	0.0766	0.13	134	1.06	1017.1	17.4	1047	26	1.75	2.2	0.171	1.8	0.80
CG-1-09-19.1c	0.000087	0.0856	0.14	185	2.45	1243	19	1302	34	2.48	2.4	0.213	1.6	0.68
CG-1-09-20.1c	0.000000	0.0812	0.00	177	2.71	1178	19	1227	27	2.25	2.2	0.201	1.6	0.77
CG-1-09-21.1c	0.000384	0.0921	0.63	95	4.22	1493	28	1354	53	3.09	3.4	0.259	1.9	0.58
CG-1-09-22.1c*	---	0.0816	0.09	35	1.40	1056.1	18.3	1076	47	1.85	3.0	0.178	1.8	0.60
CG-1-09-23.1c	0.000000	0.0819	0.00	138	1.75	1151	46	1243	30	2.22	4.4	0.196	4.1	0.94
CG-1-09-24.1c*	-0.000201	0.0738	0.21	54	1.78	1011.8	15.9	1134	55	1.83	3.2	0.171	1.6	0.51
CG-1-09-25.1c	0.000130	0.0830	0.22	188	2.52	1207	19	1225	35	2.31	2.4	0.206	1.6	0.67
CG-1-09-26.1c	0.000064	0.0860	0.11	166	2.01	1326	21	1318	29	2.68	2.2	0.228	1.7	0.74
CG-1-09-27.1c*	0.000035	0.0731	0.08	201	2.93	1067.9	14.1	1072	35	1.87	2.2	0.180	1.4	0.62
CG-1-09-28.1c*	---	0.0724	0.34	103	1.15	1026.8	14.5	1103	30	1.82	2.1	0.173	1.5	0.70
CG-1-09-29.1c	0.000083	0.0797	0.14	379	1.17	1199	16	1160	23	2.21	1.8	0.204	1.4	0.77
CG-1-09-30.1c*	-0.000075	0.0729	0.21	69	1.61	981.8	15.5	1060	43	1.70	2.7	0.165	1.6	0.60
CG-1-09-31.1c*	0.000403	0.0784	-0.18	23	2.17	1003.8	20.1	785	112	1.50	5.7	0.167	2.1	0.36
CG-1-09-32.1c	0.000068	0.0900	0.11	69	4.22	1401	29	1405	40	2.98	3.0	0.243	2.2	0.72
CG-1-09-33.1c	0.000060	0.0799	0.10	180	0.90	1140	18	1174	30	2.11	2.2	0.194	1.6	0.73
CG-1-09-34.1c	-0.000770	0.0740	-1.27	39	1.42	1000	27	1312	134	1.99	7.5	0.170	2.8	0.38
CG-1-09-35.1c	0.000272	0.0901	0.45	125	2.23	1433	26	1345	103	2.95	5.6	0.248	1.8	0.32
CG-1-09-36.1c	0.000199	0.0825	0.33	171	1.45	1256	29	1189	43	2.36	3.3	0.214	2.4	0.74
CG-1-09-37.1c	0.000765	0.0922	1.27	85	2.25	1096	35	1231	99	2.09	6.0	0.187	3.3	0.55
CG-1-09-38.1c*	-0.000202	0.0831	0.31	45	1.39	1011.6	20.6	1155	60	1.85	3.7	0.171	2.1	0.57
CG-1-09-39.1c	0.000956	0.0812	1.66	104	0.55	1114	21	851	130	1.73	6.6	0.186	2.0	0.30
CG-1-09-40.1c*	---	0.0767	0.05	151	1.43	1019.7	15.9	1031	24	1.74	2.0	0.171	1.6	0.81
CG-1-09-41.1c	0.000409	0.0888	0.68	86	1.80	1402	44	1270	68	2.76	4.8	0.241	3.3	0.69

CG-1-09-42.1c	0.000163	0.0897	0.27	343	0.63	1307	19	1370	24	2.72	1.9	0.226	1.5	0.77
CG-1-09-43.1c*	---	0.0807	0.29	33	1.04	1010.1	18.9	1077	51	1.77	3.2	0.170	1.9	0.61
CG-1-09-44.1c	0.000106	0.0824	0.18	501	0.06	1194	15	1218	20	2.27	1.7	0.204	1.3	0.80
CG-1-09-45.1c	0.000170	0.0807	0.29	196	0.78	1157	18	1153	39	2.12	2.5	0.197	1.6	0.64
CG-1-09-46.1c	0.000129	0.0830	0.21	125	0.62	1224	21	1227	39	2.34	2.7	0.209	1.8	0.66
CG-1-09-47.1c	0.001080	0.0977	1.79	43	2.86	2003	174	1257	231	3.94	14.6	0.347	8.6	0.59
CG-1-09-48.1c	0.001595	0.0762	2.90	63	2.24	913	20	324	300	1.09	13.4	0.149	2.4	0.18
CG-1-09-49.1c	0.000651	0.0940	1.07	60	2.11	1641	44	1313	85	3.33	5.2	0.284	2.7	0.53
CG-1-09-50.1c	0.000381	0.0903	0.63	65	6.41	1380	30	1315	98	2.79	5.5	0.238	2.2	0.40
CG-1-09-51.1c	0.000090	0.1083	0.14	281	0.37	1744	28	1750	102	4.59	5.8	0.311	1.5	0.26
CG-1-09-51.2r	0.002468	0.0944	4.40	44	1.45	1018	25	550	353	1.36	16.4	0.168	2.7	0.17
CG-1-09-52.1c	0.000256	0.1027	0.41	197	1.76	1404	40	1608	34	3.37	3.5	0.246	2.9	0.85
CG-1-09-53.1c	0.001328	0.0900	2.28	46	1.12	1029	26	957	212	1.69	10.7	0.173	2.7	0.25
CG-1-09-53.2r	0.000282	0.0851	0.47	101	2.31	1323	55	1224	56	2.54	5.2	0.227	4.3	0.84
CG-1-09-54.1c	0.000792	0.0869	1.34	66	2.42	1088	81	1086	195	1.92	12.4	0.184	7.7	0.62
CG-1-09-55.1c	0.000062	0.1082	0.10	484	0.41	1869	25	1755	21	4.94	1.8	0.334	1.3	0.76
CG-1-09-56.1c	0.000235	0.0885	0.39	117	2.60	1319	24	1321	46	2.67	3.0	0.227	1.9	0.62
CG-1-09-57.1c	0.000160	0.0907	0.26	169	1.51	1226	42	1392	72	2.58	5.2	0.211	3.6	0.69
CG-1-09-58.1c	0.002267	0.0928	4.03	29	2.60	1228	43	598	409	1.69	19.3	0.204	3.8	0.20
CG-1-09-59.1c	-0.000026	0.0851	-0.04	192	2.10	1422	22	1326	24	2.89	2.0	0.246	1.6	0.79
CG-1-09-60.1c	0.000014	0.0944	0.02	416	0.49	1469	69	1513	16	3.33	4.9	0.257	4.8	0.99
CG-1-09-61.1c	0.000064	0.1031	0.10	249	0.45	1647	24	1665	18	4.11	1.8	0.291	1.5	0.84
CG-1-09-62.1c	0.000243	0.1079	0.38	329	0.38	1554	21	1707	39	3.97	2.5	0.275	1.4	0.55
CG-1-09-63.1c	0.000034	0.0754	0.03	216	2.22	1022.9	13.6	1016	22	1.73	1.7	0.172	1.4	0.79
CG-1-09-64.1c	0.000036	0.1027	0.06	292	0.42	1837	28	1665	17	4.59	1.8	0.326	1.5	0.86
CG-1-09-65.1c	0.000039	0.0837	0.06	144	3.08	1341	25	1274	31	2.64	2.5	0.230	1.9	0.77
CG-1-09-66.1c	0.000087	0.0806	0.14	67	3.69	1045	21	1181	53	1.94	3.4	0.177	2.1	0.62
CG-1-09-67.1c	0.000873	0.1016	1.42	65	6.56	1293	27	1414	90	2.76	5.2	0.224	2.2	0.42
CG-1-09-68.1c	0.000013	0.1045	0.02	292	0.37	1821	40	1703	14	4.66	2.4	0.324	2.2	0.95
CG-1-09-68.2r	0.000000	0.0871	0.00	163	0.20	1326	21	1364	46	2.75	2.9	0.229	1.6	0.56
CG-1-09-69.1c	0.000759	0.0792	1.31	36	2.39	1064	33	879	185	1.68	9.5	0.178	3.2	0.34
CG-1-09-69.2r	0.000218	0.0766	0.37	326	0.70	1028	14	1027	36	1.75	2.3	0.173	1.4	0.63
CG-1-09-70.1c	0.000098	0.0748	0.17	126	0.65	1026	17	1025	44	1.75	2.8	0.172	1.7	0.62
CG-1-09-70.2r	0.000370	0.0780	0.63	51	1.43	1023	25	1006	126	1.72	6.7	0.172	2.6	0.38
CG-1-09-71.1puz	0.000041	0.0801	0.07	299	3.13	1132.7	10.4	1184	20	2.11	1.4	0.193	1.0	0.69
CG-1-09-72.1puz	-0.000023	0.0727	-0.04	132	0.94	995.8	11.4	1015	32	1.68	2.0	0.167	1.2	0.60
CG-1-09-73.1puz	0.000097	0.0786	0.16	90	3.68	1103.8	14.2	1128	39	1.99	2.4	0.187	1.3	0.56
CG-1-09-74.1puz	0.000165	0.0727	0.28	369	1.07	894.7	8.3	937	34	1.45	1.9	0.149	1.0	0.50
CG-1-09-75.1puz	0.000269	0.0748	0.46	101	1.38	974.1	13.3	955	66	1.59	3.5	0.163	1.4	0.40
CG-1-09-76.1puz	0.000036	0.0872	0.06	223	3.11	1340.8	13.6	1354	26	2.77	1.7	0.231	1.0	0.62
CG-1-09-77.1puz	0.000158	0.0914	0.26	152	2.30	1341.2	15.1	1409	31	2.86	2.0	0.232	1.2	0.58
CG-1-09-78.1puz	0.000528	0.0803	0.90	42	2.00	973.5	19.2	1007	127	1.64	6.6	0.163	2.1	0.31
CG-1-09-79.1puz	0.001329	0.0833	2.33	36	2.93	1005.5	20.5	746	233	1.48	11.2	0.167	2.2	0.20
CG-1-09-80.1puz	0.000064	0.0782	0.11	246	0.31	976.4	9.9	1129	27	1.75	1.7	0.165	1.1	0.61

Cloudland gneiss-pelite (36°06'15" N, 82°08'04" W)

B-1-09A-1.1r	---	0.0736	0.00	189	0.13	988.4	10.5	1030	35	1.68	2.0	0.166	1.1	0.53
B-1-09A-2.1r	0.000031	0.0710	0.05	200	0.12	1001.3	10.4	943	28	1.63	1.7	0.168	1.1	0.62
B-1-09A-3.1r	0.000051	0.0756	0.09	103	0.69	1022.0	13.2	1064	38	1.78	2.3	0.172	1.3	0.57
B-1-09A-4.1cduz	---	0.0766	0.00	75	2.15	1081.3	15.1	1111	42	1.93	2.6	0.183	1.4	0.56
B-1-09A-5.1r	-0.000160	0.0791	-0.27	57	2.16	1052.3	16.0	1229	53	2.00	3.1	0.179	1.6	0.50
B-1-09A-6.1cduz	0.000028	0.0738	0.05	506	0.37	993.2	8.5	1025	19	1.69	1.3	0.167	0.9	0.69

B-1-09A-7.1r	0.000453	0.0728	0.79	63	0.75	1010.4	15.1	814	112	1.54	5.6	0.168	1.6	0.28
B-1-09A-8.1cduz	0.000082	0.0728	0.14	192	0.45	1001.3	10.5	974	33	1.66	2.0	0.168	1.1	0.55
B-1-09A-9.1r	0.000202	0.0758	0.35	83	0.48	1017.3	14.0	1012	75	1.72	4.0	0.171	1.4	0.36
B-1-09A-10.1r	0.000029	0.0714	0.05	340	0.03	990.8	9.2	957	24	1.62	1.5	0.166	1.0	0.64
B-1-09A-11.1r	0.000011	0.0695	0.02	451	0.01	906.5	8.1	908	20	1.44	1.3	0.151	0.9	0.69
B-1-09A-12.1r	0.000099	0.0732	0.17	233	0.29	1012.8	10.2	979	31	1.68	1.8	0.170	1.0	0.57
B-1-09A-13.1r	0.000056	0.0757	0.09	286	0.29	998.1	9.6	1065	25	1.73	1.6	0.168	1.0	0.62
B-1-09A-14.1cuz	0.000425	0.0773	0.73	81	2.25	1034.2	14.5	963	80	1.70	4.2	0.173	1.5	0.35
B-1-09A-15.1r	-0.000053	0.0750	-0.09	162	0.37	978.5	11.2	1090	34	1.72	2.1	0.165	1.2	0.57
B-1-09A-16.1cduz	-0.000040	0.0723	-0.07	285	0.25	1028.1	10.0	1010	25	1.74	1.6	0.173	1.0	0.63
B-1-09A-17.1cduz	0.000034	0.0733	0.06	522	0.21	1003.5	8.7	1009	19	1.69	1.3	0.168	0.9	0.69
B-1-09A-18.1cduz	0.000060	0.0721	0.10	156	0.38	988.9	11.5	963	36	1.63	2.1	0.166	1.2	0.56
B-1-09A-19.1cduz	0.000095	0.0780	0.16	282	0.16	988.5	9.9	1111	28	1.76	1.7	0.167	1.0	0.60
B-1-09A-20.1r	0.000058	0.0749	0.10	108	1.17	1006.5	13.5	1043	42	1.73	2.5	0.169	1.4	0.56
B-1-09A-21.1cduz	0.000037	0.0735	0.06	253	0.39	1028.8	10.0	1014	26	1.74	1.6	0.173	1.0	0.61
B-1-09A-22.1cduz	0.000136	0.0715	0.23	230	0.06	907.1	9.2	914	37	1.45	2.1	0.151	1.0	0.50
B-1-09A-23.1cduz	0.000023	0.0721	0.04	819	0.28	1034.1	8.4	979	14	1.72	1.1	0.174	0.8	0.78
B-1-09A-24.1cduz	0.000030	0.0740	0.05	238	0.10	994.5	9.9	1028	25	1.69	1.6	0.167	1.0	0.64
B-1-09A-25.1cduz	0.000064	0.0716	0.11	317	0.05	949.2	8.9	949	25	1.55	1.6	0.159	1.0	0.62
B-1-09A-26.1c	-0.000006	0.0738	-0.01	178	0.50	1002.6	10.9	1039	28	1.72	1.8	0.169	1.1	0.62
B-1-09A-27.1c	0.000057	0.0795	0.10	515	0.03	1171.5	10.0	1165	19	2.16	1.3	0.199	0.9	0.67
B-1-09A-28.1c	0.000087	0.0836	0.14	134	0.52	1074.0	13.4	1254	103	2.08	5.4	0.183	1.2	0.22
B-1-09A-29.1c	0.000253	0.0760	0.43	81	0.57	1029.5	14.3	998	85	1.73	4.4	0.173	1.5	0.33
B-1-09A-30.1c	0.000017	0.0752	0.03	671	0.03	1008.1	8.0	1067	12	1.75	1.0	0.170	0.8	0.81
B-1-09A-31.1c	0.000099	0.0788	0.17	264	0.04	1022.6	9.2	1132	25	1.84	1.6	0.173	0.9	0.59
B-1-09A-32.1c	0.000018	0.0746	0.03	277	0.14	1034.6	9.2	1052	19	1.79	1.3	0.174	0.9	0.71
B-1-09A-33.1c	0.000001	0.0783	0.00	2541	0.18	1092.2	8.1	1154	6	2.00	0.8	0.185	0.8	0.94
B-1-09A-34.1c	0.000050	0.0768	0.08	250	0.03	1048.1	9.6	1098	23	1.86	1.5	0.177	1.0	0.64
B-1-09A-35.1c	0.000019	0.0747	0.03	352	0.33	1061.5	9.3	1054	26	1.84	1.6	0.179	0.9	0.57
B-1-09A-36.1c	0.000017	0.0800	0.03	1101	0.20	1205.8	9.4	1191	25	2.26	1.5	0.206	0.8	0.53
B-1-09A-37.1c	0.000193	0.0752	0.33	214	0.03	1059.5	10.0	997	34	1.78	1.9	0.178	1.0	0.51
B-1-09A-38.1c	0.000069	0.0730	0.12	330	0.09	974.7	8.6	985	21	1.62	1.4	0.163	0.9	0.66
B-1-09A-39.1c	-0.000034	0.0732	-0.06	84	0.78	1043.1	12.9	1032	37	1.78	2.2	0.176	1.3	0.57
B-1-09A-40.1c	0.000001	0.0764	0.00	636	0.09	1116.1	9.0	1105	18	1.99	1.2	0.189	0.8	0.67
B-1-09A-41.1c	0.000044	0.0748	0.07	240	0.11	1073.2	9.9	1046	22	1.85	1.5	0.181	1.0	0.66
B-1-09A-42.1c	-0.000042	0.0839	-0.07	231	0.63	1016.5	9.8	1305	68	2.02	3.6	0.173	0.9	0.26
B-1-09A-43.1c	0.000093	0.0745	0.16	122	0.67	990.4	10.9	1020	36	1.68	2.1	0.166	1.1	0.53
B-1-09A-44.1c	0.000007	0.0731	0.01	627	0.02	1006.3	8.2	1013	13	1.70	1.1	0.169	0.8	0.79
B-1-09A-45.1c	-0.000020	0.0746	-0.03	157	0.27	976.2	10.2	1067	40	1.70	2.3	0.164	1.1	0.47
B-1-09A-46.1c	0.000038	0.0713	0.07	406	0.07	978.6	8.4	950	18	1.60	1.3	0.164	0.9	0.70
B-1-09A-47.1c	0.000002	0.0795	0.00	1253	0.02	1135.7	8.7	1184	10	2.12	0.9	0.193	0.8	0.84
B-1-09A-48.1c	0.000015	0.0767	0.03	474	0.03	1052.8	8.8	1107	22	1.88	1.4	0.178	0.9	0.61
B-1-09A-49.1c	-0.000010	0.0750	-0.02	426	0.02	1167.6	10.0	1072	39	2.05	2.1	0.198	0.9	0.41
B-1-09A-50.1c	0.000053	0.0722	0.09	382	0.07	1029.6	8.9	971	20	1.70	1.3	0.173	0.9	0.67
B-1-09A-51.1c	0.000010	0.0801	0.02	1473	0.02	1210.5	9.2	1197	8	2.28	0.9	0.206	0.8	0.90
B-1-09A-52.1c	0.000009	0.0794	0.01	1394	0.08	1167.6	8.9	1179	8	2.17	0.9	0.199	0.8	0.89
B-1-09A-53.1c	0.000205	0.0797	0.35	208	0.03	1121.3	10.6	1117	31	2.01	1.8	0.190	1.0	0.54
B-1-09A-54.1c	0.000065	0.0705	0.11	59	1.25	1032.8	14.8	916	53	1.66	3.0	0.173	1.5	0.50
B-1-09A-55.1c	0.000306	0.0743	0.53	105	0.32	973.0	11.6	925	58	1.57	3.1	0.163	1.2	0.40
B-1-09A-56.1c	-0.000003	0.0767	0.00	726	0.04	1062.0	8.5	1113	12	1.90	1.0	0.179	0.8	0.81
B-1-09A-57.1c	0.000025	0.0818	0.04	627	0.20	1189.0	9.6	1233	12	2.28	1.0	0.203	0.8	0.81
B-1-09A-58.1c	0.000227	0.0738	0.39	100	1.08	982.6	11.9	944	56	1.60	3.0	0.164	1.3	0.42

B-1-09A-59.1c	0.000030	0.0703	0.05	416	0.05	968.0	8.4	924	18	1.56	1.3	0.162	0.9	0.71
B-1-09A-60.1c	-0.000026	0.0741	-0.04	309	0.23	1003.0	9.1	1054	19	1.73	1.3	0.169	0.9	0.70
B-1-09A-61.1c	-0.000025	0.0736	-0.04	254	0.16	1066.6	10.1	1041	25	1.83	1.6	0.180	1.0	0.62
B-1-09A-62.1c	-0.000040	0.0733	-0.07	264	0.15	998.5	9.4	1038	24	1.71	1.5	0.168	1.0	0.64
B-1-09A-63.1c	0.000008	0.0733	0.01	808	0.04	1003.1	8.1	1020	28	1.70	1.6	0.168	0.8	0.51
B-1-09A-64.1c	0.000126	0.0723	0.22	183	0.07	959.1	9.7	942	37	1.56	2.1	0.160	1.1	0.50
B-1-09A-65.1c	0.000036	0.0744	0.06	243	0.06	1035.8	9.8	1037	25	1.77	1.6	0.174	1.0	0.62
B-1-09A-66.1c	0.000073	0.0781	0.12	271	0.05	1106.4	10.3	1123	23	1.99	1.5	0.187	1.0	0.65
B-1-09A-67.1c	0.000069	0.0768	0.12	212	0.56	1055.8	10.4	1091	29	1.86	1.8	0.178	1.0	0.58
B-1-09A-68.1c	-0.000036	0.0729	-0.06	198	0.16	986.1	10.0	1025	26	1.68	1.7	0.166	1.0	0.63
B-1-09A-69.1c	0.000145	0.0735	0.25	209	0.45	1005.0	10.2	970	34	1.66	2.0	0.168	1.0	0.53
B-1-09A-70.1c	0.000016	0.0731	0.03	761	0.19	1027.2	8.4	1009	23	1.73	1.4	0.173	0.8	0.60
B-1-09A-71.1c	0.000307	0.0738	0.53	65	2.14	982.8	14.6	911	82	1.57	4.3	0.164	1.6	0.36
B-1-09A-1.1r	0.000011	0.0702	0.021	2272	0.05	893	5	930	5	1.44	0.6	0.149	0.5	0.92
B-1-09A-2.1r	0.000011	0.0695	0.020	2773	0.01	832	4	910	4	1.32	0.6	0.138	0.5	0.94
B-1-09A-3.1r	0.000006	0.0707	0.010	3027	0.02	957	5	945	4	1.56	0.6	0.160	0.6	0.95
B-1-09A-4.1r	0.000025	0.0721	0.045	3177	0.08	997	6	979	4	1.65	0.6	0.167	0.6	0.95
B-1-09A-5.1r	0.000022	0.0710	0.040	2823	0.03	1028	5	949	11	1.68	0.7	0.172	0.5	0.71
B-1-09A-6.1r	0.000005	0.0706	0.009	3716	0.02	961	7	943	4	1.56	0.8	0.161	0.8	0.98
B-1-09A-7.1r	0.000011	0.0718	0.021	2416	0.12	1078	34	975	19	1.79	3.4	0.181	3.2	0.96
B-1-09A-8.1r	0.000020	0.0707	0.036	4665	0.05	1021	6	941	7	1.66	0.7	0.171	0.6	0.86
B-1-09A-9.1r	0.000029	0.0693	0.054	2790	0.01	952	5	896	9	1.51	0.7	0.159	0.5	0.76
B-1-09A-10.1r	0.000022	0.0728	0.040	1770	0.20	1039	7	998	5	1.74	0.7	0.175	0.7	0.93
B-1-09A-11.1puz	0.000006	0.0721	0.010	1506	0.07	980	6	986	5	1.63	0.7	0.164	0.7	0.93
B-1-09A-12.1puz	0.000002	0.0705	0.004	2490	0.09	1025	67	942	53	1.67	7.2	0.172	6.7	0.93
B-1-09A-13.1r	0.000023	0.0712	0.041	2168	0.14	895	12	955	5	1.46	1.4	0.149	1.4	0.99
B-1-09A-14.1puz	0.000004	0.0730	0.007	1477	0.24	973	5	1012	9	1.64	0.7	0.163	0.5	0.77
B-1-09A-15.1puz	0.000003	0.0716	0.006	2618	0.09	945	5	972	7	1.56	0.6	0.158	0.5	0.84
B-1-09A-16.1puz	0.000012	0.0747	0.022	1234	0.27	1048	7	1056	6	1.82	0.8	0.177	0.7	0.93
B-1-09A-17.1puz	0.000007	0.0754	0.014	1006	0.26	1092	60	1076	57	1.91	6.3	0.184	5.7	0.89
B-1-09A-18.1puz	0.000006	0.0724	0.010	2589	0.13	992	6	995	9	1.66	0.8	0.166	0.6	0.80
B-1-09A-19.1puz	0.000007	0.0725	0.013	1538	0.21	1029	7	997	6	1.73	0.8	0.173	0.7	0.92
B-1-09A-20.1puz	-0.000006	0.0727	-0.010	1414	0.24	1064	13	1007	9	1.80	1.3	0.179	1.2	0.94

session I

mB-1-09A-1.1c	-0.000160	0.0443	-0.92	200	223.4	272.0	109.9	32	160	0.28	41.5	0.043	41.0	0.99
mB-1-09A-1.2r	-0.000131	0.0744	0.47	310	132.2	940.7	22.7	1101	78	1.66	4.6	0.158	2.5	0.54
mB-1-09A-4.1c	0.000649	0.0792	0.90	60	458.3	977.6	57.3	926	305	1.58	16.1	0.163	6.2	0.38
mB-1-09A-4.2r	0.000121	0.0754	0.73	136	325.5	909.7	31.6	1034	90	1.55	5.7	0.152	3.6	0.63
mB-1-09A-5.1c	0.000253	0.0716	0.45	844	60.9	867.0	15.4	869	98	1.35	5.1	0.144	1.9	0.37
mB-1-09A-5.2r	-0.000087	0.0708	0.37	1055	57.5	859.6	14.6	986	38	1.42	2.5	0.143	1.8	0.69
mB-1-09A-6.1c	0.000180	0.0763	0.32	352	65.1	1031.3	23.4	1035	54	1.76	3.6	0.174	2.4	0.66
mB-1-09A-7.1c	0.000334	0.0764	0.33	979	42.4	1032.2	17.6	976	74	1.71	4.0	0.173	1.8	0.44
mB-1-09A-7.2c	0.000368	0.0721	-0.25	715	79.1	1046.8	19.5	831	106	1.61	5.5	0.175	2.0	0.36
mB-1-09A-8.1c	-0.000593	0.0800	1.47	117	413.5	863.3	33.3	1390	111	1.79	7.0	0.147	4.0	0.57
mB-1-09A-8.2r	0.000944	0.0789	1.08	211	294.2	925.8	27.6	784	428	1.38	20.7	0.154	3.5	0.17
mB-1-09A-9.1c	-0.001195	0.0737	1.05	250	191.4	775.7	22.0	1433	185	1.64	10.2	0.132	3.1	0.31
mB-1-09A-9.2r	0.000520	0.0776	0.60	173	378.7	1002.8	32.7	933	191	1.62	9.9	0.168	3.4	0.35
mB-1-09A-10.1c	0.000278	0.0762	0.64	316	101.5	954.7	23.7	993	123	1.59	6.6	0.160	2.6	0.40
mB-1-09A-10.2r	0.000630	0.0719	0.73	476	87.4	803.7	18.1	702	189	1.15	9.2	0.132	2.4	0.26
mB-1-09A-11.1c	-0.000014	0.0743	0.28	408	39.9	986.4	21.6	1056	41	1.70	3.1	0.166	2.3	0.74
mB-1-09A-11.2r	0.002430	0.0541	-1.43	101	303.3	806.1	40.5					0.126	5.7	

mB-1-09A-13.1c	-0.000365	0.0751	0.46	446	44.4	965.2	20.8	1203	74	1.81	4.4	0.163	2.3	0.51
mB-1-09A-13.2r	0.000526	0.0688	0.60	199	160.5	737.4	23.3	647	220	1.02	10.8	0.121	3.3	0.31
mB-1-09A-14.1c	-0.000086	0.0740	0.35	310	80.8	959.8	23.7	1074	54	1.67	3.7	0.161	2.6	0.69
mB-1-09A-14.2r	0.000532	0.0744	0.17	250	133.9	1012.7	27.6	829	185	1.55	9.3	0.169	2.9	0.31
mB-1-09A-15.1c	-0.000684	0.0797	0.76	86	606.5	1022.4	46.8	1410	158	2.16	9.5	0.175	4.8	0.50
mB-1-09A-15.2c	0.000980	0.0758	0.55	205	143.5	964.3	28.7	662	286	1.36	13.7	0.160	3.2	0.23
mB-1-09A-16.1c	0.010750	0.1125	5.60	915	87.4	812.3	137.9					0.116	28.5	
mB-1-09A-16.2r	0.000011	0.0724	-0.19	666	49.2	1039.7	19.8	992	35	1.74	2.6	0.175	2.0	0.76
mB-1-09A-17.1c	0.000249	0.0770	0.50	300	67.4	1008.8	25.2	1027	89	1.72	5.1	0.170	2.6	0.51
mB-1-09A-18.2r	0.000294	0.0723	-0.23	217	168.1	1047.5	30.3	871	98	1.64	5.6	0.175	3.0	0.54
mB-1-09A-19.1c	0.000031	0.0730	-0.04	1301	27.9	1021.4	16.0	1000	27	1.71	2.1	0.172	1.6	0.77
mB-1-09A-19.2r	0.000227	0.0734	0.15	1150	22.2	989.1	16.1	931	48	1.60	2.9	0.165	1.7	0.58
<i>session 2</i>														
mB-1-09A-1.2r	0.001028	0.0822	1.78	99	513	1030	24	850	95	1.60	5.2	0.172	2.5	0.47
mB-1-09A-2.2c	0.000149	0.0763	0.25	306	116	1055	17	1047	21	1.82	1.9	0.178	1.6	0.85
mB-1-09A-3.2c	0.000186	0.0755	0.32	507	85	1026	16	1009	24	1.73	2.0	0.172	1.6	0.81
mB-1-09A-4.3r	0.000690	0.0773	1.20	223	196	950	18	851	65	1.47	3.7	0.158	2.0	0.54
mB-1-09A-4.4c	0.000170	0.0746	0.29	475	72	1006	16	992	25	1.68	2.1	0.169	1.7	0.81
mB-1-09A-5.2c	0.000089	0.0747	0.15	1519	31	1018	14	1027	11	1.73	1.5	0.171	1.4	0.93
mB-1-09A-6.3r	0.000572	0.0752	0.99	204	210	853	17	836	68	1.30	3.9	0.141	2.0	0.53
mB-1-09A-6.4c	0.000236	0.0759	0.40	695	35	1012	15	1002	23	1.70	1.9	0.170	1.6	0.81
mB-1-09A-7.3r	0.000656	0.0815	1.12	139	358	961	21	988	73	1.60	4.2	0.161	2.3	0.53
mB-1-09A-7.4c	0.000095	0.0750	0.16	522	39	1069	17	1031	19	1.83	1.9	0.180	1.6	0.87
mB-1-09A-8.3r	0.000553	0.0779	0.95	193	232	1028	20	928	57	1.66	3.4	0.172	2.0	0.59
mB-1-09A-8.4c	0.000642	0.0802	1.10	130	258	1059	24	959	72	1.74	4.3	0.178	2.4	0.56
mB-1-09A-9.2c	0.000389	0.0726	0.68	333	140	731	12	839	50	1.11	3.0	0.121	1.8	0.59
mB-1-09A-10.2	0.000093	0.0766	0.16	960	25	1040	15	1075	14	1.82	1.6	0.175	1.5	0.91
mB-1-09A-11.2	0.000316	0.0789	0.54	226	313	1048	20	1053	42	1.81	2.9	0.177	2.0	0.69
mB-1-09A-12.1r	0.000299	0.0765	0.51	199	124	1016	19	992	40	1.70	2.8	0.171	1.9	0.70
mB-1-09A-12.2c	0.000188	0.0758	0.32	584	40	1039	16	1018	22	1.76	1.9	0.175	1.6	0.82

Cloudland gneiss-quartzite (36°06'15" N, 82°08'04" W)

<i>session 1</i>														
B-1-09B-1.0c	0.000000	0.0898	0.00	164	0.408	1158	28	1422	42	2.47	3.3	0.199	2.5	0.76
B-1-09B-2.1c	0.000166	0.0761	0.28	1144	0.127	1288	116	1035	120	2.22	11.1	0.219	9.3	0.84
B-1-09B-2.2r	0.000063	0.0743	0.11	1318	0.211	1069	13	1026	20	1.82	1.6	0.180	1.3	0.78
B-1-09B-3.1c	0.000600	0.1245	0.92	76	0.810	1567	47	1902	78	4.52	5.3	0.281	3.1	0.58
B-1-09B-4.1c	0.000204	0.0858	0.34	409	0.188	1121	17	1268	39	2.19	2.5	0.191	1.6	0.63
B-1-09B-5.1c	0.000387	0.0854	0.65	523	0.328	1127	17	1196	89	2.11	4.8	0.192	1.6	0.33
B-1-09B-6.1c	0.000131	0.0785	0.22	1436	0.009	1172	14	1111	25	2.10	1.7	0.199	1.2	0.70
B-1-09B-7.1c	0.001225	0.1381	1.86	118	0.952	2356	64	1982	121	7.16	7.2	0.427	2.5	0.34
B-1-09B-8.1c	0.000119	0.0812	0.20	459	0.042	1058	16	1185	38	1.97	2.5	0.179	1.6	0.63
B-1-09B-9.1c	0.000029	0.0777	0.05	1688	0.026	1092	12	1130	16	1.97	1.4	0.185	1.2	0.83
B-1-09B-10.1c	0.000920	0.1118	1.47	242	0.721	1492	29	1608	87	3.58	5.1	0.262	2.0	0.40
B-1-09B-11.1c	0.000057	0.0734	0.10	1074	0.043	990	12	1002	25	1.66	1.8	0.166	1.3	0.72
B-1-09B-12.1c	0.000201	0.0838	0.34	529	0.088	1125	16	1220	37	2.14	2.4	0.192	1.5	0.61
B-1-09B-13.1c	0.000135	0.0808	0.23	826	0.031	1197	16	1170	28	2.22	1.9	0.204	1.4	0.70
B-1-09B-14.1c	0.000423	0.0819	0.72	451	0.279	1080	27	1093	57	1.91	3.9	0.182	2.6	0.68
B-1-09B-15.1c	0.000741	0.0822	1.27	148	0.412	1046	100	976	214	1.74	14.4	0.176	9.9	0.69
B-1-09B-16.1r	0.000158	0.0758	0.27	1059	0.067	1007	12	1028	28	1.72	1.9	0.169	1.3	0.68
B-1-09B-17.1c	0.000226	0.0810	0.38	620	0.076	1116	16	1141	35	2.03	2.3	0.189	1.4	0.64
B-1-09B-17.2r	0.000049	0.0742	0.08	1412	0.137	1120	14	1029	23	1.92	1.7	0.189	1.3	0.76

B-1-09B-18.1c	0.000262	0.0758	0.45	896	0.031	1126	20	988	39	1.88	2.7	0.190	1.9	0.70
B-1-09B-19.1c	0.000592	0.0817	1.01	239	0.063	1096	23	1020	95	1.86	5.2	0.185	2.2	0.42
B-1-09B-20.1c	0.000034	0.0734	0.06	1656	0.114	1049	12	1012	18	1.77	1.5	0.176	1.2	0.80
B-1-09B-21.1c	0.000164	0.0793	0.28	735	0.047	1267	29	1120	30	2.29	2.8	0.216	2.3	0.84
B-1-09B-22.1c	0.000170	0.0789	0.29	642	0.213	1065	15	1108	36	1.90	2.3	0.180	1.4	0.62
B-1-09B-23.1c	0.000107	0.0760	0.18	646	0.042	1067	15	1055	33	1.85	2.2	0.180	1.4	0.65
B-1-09B-24.1c	0.000118	0.0797	0.20	523	0.036	1165	17	1147	57	2.13	3.2	0.198	1.5	0.45
B-1-09B-25.1c	0.000285	0.0750	0.49	873	0.373	1044	13	954	43	1.71	2.5	0.175	1.3	0.53
B-1-09B-26.1c	0.000116	0.0899	0.19	453	0.589	1459	38	1389	30	3.08	3.1	0.253	2.7	0.87
B-1-09B-27.1c	0.000410	0.0792	0.70	749	0.051	1014	27	1025	47	1.72	3.6	0.170	2.8	0.77
B-1-09B-28.1c	0.000263	0.1017	0.42	889	0.095	1074	21	1588	25	2.52	2.4	0.186	2.0	0.84
B-1-09B-29.1c	0.000357	0.0818	0.60	499	0.150	1176	17	1113	47	2.11	2.8	0.200	1.5	0.54
B-1-09B-30.1c	0.000240	0.0786	0.41	570	0.041	1086	15	1073	42	1.90	2.6	0.183	1.5	0.57
B-1-09B-31.1c	0.000244	0.0802	0.41	851	0.036	1213	16	1115	34	2.18	2.2	0.206	1.4	0.62
B-1-09B-32.1c	0.000295	0.0767	0.50	1151	0.149	1172	17	1000	64	1.98	3.5	0.198	1.5	0.43
B-1-09B-33.1c	0.000120	0.0770	0.20	558	0.048	1118	16	1076	35	1.96	2.3	0.189	1.5	0.65
B-1-09B-34.1c	0.000181	0.0785	0.31	656	0.036	1054	33	1093	86	1.86	5.4	0.178	3.3	0.61
B-1-09B-35.1c	0.000626	0.0975	1.02	485	1.443	1193	31	1398	53	2.51	3.9	0.205	2.7	0.70
B-1-09B-35.2r	-0.000024	0.0748	-0.04	1668	0.134	1083	13	1074	18	1.90	1.6	0.183	1.3	0.82
B-1-09B-36.1c	0.000292	0.0742	0.50	862	0.394	927	12	930	45	1.49	2.6	0.155	1.4	0.53
B-1-09B-37.1c	0.000105	0.0736	0.18	934	0.037	1032	13	988	30	1.72	2.0	0.173	1.3	0.67
B-1-09B-38.1c	0.001125	0.1046	1.84	195	0.383	1430	53	1402	92	3.04	6.1	0.248	3.8	0.63
B-1-09B-39.1c	0.000186	0.0754	0.32	733	0.049	1010	14	1008	38	1.70	2.4	0.170	1.4	0.60
B-1-09B-40.1c	0.000380	0.0940	0.62	387	0.238	1241	54	1398	125	2.62	7.9	0.214	4.5	0.57
B-1-09B-41.1c	0.000084	0.0787	0.14	700	0.073	1158	15	1134	27	2.10	1.9	0.197	1.4	0.72
B-1-09B-42.1c	0.000381	0.0784	0.65	459	0.171	1008	15	1012	59	1.70	3.3	0.169	1.5	0.47
B-1-09B-43.1c	0.000070	0.1667	0.10	1010	0.219	1756	22	2516	12	7.63	1.5	0.334	1.3	0.88
B-1-09B-43.2r	0.000110	0.0759	0.19	1411	0.202	1072	13	1051	24	1.85	1.7	0.181	1.2	0.72
B-1-09B-44.1c	0.000093	0.1070	0.15	132	0.909	1592	41	1727	43	4.12	3.5	0.283	2.7	0.75
B-1-09B-45.1c	0.000274	0.0801	0.46	383	0.072	1075	19	1101	74	1.91	4.2	0.182	1.9	0.45
B-1-09B-46.1c	0.000217	0.0820	0.36	873	0.034	1171	15	1170	30	2.17	2.0	0.199	1.3	0.66
B-1-09B-47.1r	0.000514	0.0777	0.88	1107	0.052	1074	13	937	47	1.75	2.6	0.180	1.3	0.49
B-1-09B-49.1c	0.000047	0.0798	0.08	734	0.064	1162	16	1175	26	2.16	1.9	0.198	1.4	0.74
B-1-09B-52.1r	0.000214	0.0812	0.36	1442	0.175	1214	15	1150	24	2.23	1.8	0.207	1.3	0.73
B-1-09B-53.1r	0.000260	0.0788	0.44	937	0.036	1108	14	1072	35	1.94	2.2	0.187	1.3	0.60
B-1-09B-54.1r	0.000130	0.0732	0.22	1080	0.105	944	12	968	32	1.55	2.0	0.158	1.3	0.64
B-1-09B-55.1r	0.001786	0.1026	3.01	933	0.416	1207	21	1127	395	2.18	19.9	0.205	1.8	0.09
B-1-09B-56.1c	0.000106	0.0798	0.18	1068	0.039	1132	21	1154	23	2.07	2.3	0.192	1.9	0.86
B-1-09B-57.1c	0.000140	0.0928	0.23	935	0.058	1343	36	1443	46	2.92	3.7	0.233	2.8	0.76
B-1-09B-58.1c	0.000311	0.0749	0.53	686	0.055	928	22	940	74	1.50	4.4	0.155	2.4	0.56
B-1-09B-59.1c	0.000257	0.0763	0.44	493	0.059	1087	16	1004	50	1.83	2.9	0.183	1.5	0.53
B-1-09B-60.1c	0.000191	0.0776	0.32	573	0.042	1042	15	1065	41	1.81	2.5	0.176	1.5	0.59
B-1-09B-61.1c	0.000106	0.0809	0.18	445	0.029	1160	17	1183	35	2.16	2.3	0.197	1.5	0.66
B-1-09B-62.1c	0.000410	0.1243	0.63	278	0.297	1617	106	1939	217	4.77	13.8	0.291	6.6	0.48
B-1-09B-63.1c	0.000285	0.0929	0.47	391	0.391	1115	22	1401	51	2.35	3.4	0.192	2.0	0.60
B-1-09B-64.1r	0.000047	0.0767	0.08	929	0.337	1310	33	1096	26	2.34	2.9	0.223	2.6	0.90
B-1-09B-65.1r	0.000065	0.0729	0.11	1427	0.233	1039	12	986	21	1.73	1.6	0.175	1.2	0.76
B-1-09B-66.1r	0.000029	0.0744	0.05	1319	0.378	1038	12	1042	20	1.78	1.6	0.175	1.2	0.78
<i>session 2</i>														
B-1-09B-1.1c	0.000033	0.0912	1.38	351	0.30	1184.8	15.9	1441	37	2.56	2.4	0.204	1.4	0.58
B-1-09B-2.1c	0.000021	0.0734	0.74	481	0.13	847.1	11.1	1018	20	1.43	1.7	0.141	1.4	0.80
B-1-09B-3.1c	0.000017	0.0951	1.57	523	0.11	1241.6	16.6	1526	60	2.82	3.4	0.216	1.3	0.39

B-1-09B-4.1c	---	0.0822	0.12	425	0.04	1226.1	16.2	1250	17	2.38	1.6	0.210	1.4	0.84
B-1-09B-5.1c	0.000032	0.0893	1.14	317	0.45	1189.5	21.9	1401	88	2.51	4.9	0.205	1.9	0.37
B-1-09B-6.1c	0.000049	0.0757	0.23	385	0.05	1035.4	13.9	1069	23	1.81	1.8	0.175	1.4	0.78
B-1-09B-7.1c	0.000007	0.0849	0.76	164	0.58	1159.0	17.9	1312	83	2.32	4.6	0.198	1.5	0.34
B-1-09B-8.1c	0.000009	0.1040	2.48	1149	0.10	1268.4	32.9	1695	25	3.19	3.0	0.223	2.7	0.89
B-1-09B-9.1c	0.000034	0.0926	1.34	1166	0.08	1228.6	15.5	1470	24	2.70	1.8	0.213	1.3	0.72
B-1-09B-10.1c	-0.000007	0.0761	0.01	819	0.21	1095.1	13.8	1099	14	1.94	1.5	0.185	1.3	0.88
B-1-09B-11.1c	0.000059	0.1177	-10.69	103	1.65	2942.6	141.2	1809	99	7.91	6.7	0.519	3.9	0.58
B-1-09B-12.1c	0.000091	0.0755	0.23	810	0.13	1029.1	12.9	1047	18	1.77	1.6	0.173	1.3	0.82
B-1-09B-13.1c	-0.000005	0.1142	-0.30	595	0.52	1909.1	63.6	1868	29	5.41	3.7	0.344	3.4	0.90
B-1-09B-14.1c	-0.000002	0.0899	0.21	380	0.25	1384.4	18.4	1424	16	2.98	1.6	0.240	1.4	0.85
B-1-09B-15.1c	-0.000026	0.0833	0.49	367	0.12	1176.0	19.8	1285	48	2.32	3.0	0.201	1.7	0.57
B-1-09B-16.1c	0.000018	0.0757	0.17	801	0.31	1049.3	13.1	1080	13	1.84	1.4	0.177	1.3	0.90
B-1-09B-17.1c	0.000020	0.0885	1.01	160	0.42	1196.2	17.4	1387	30	2.50	2.2	0.206	1.5	0.69
B-1-09B-18.1c	0.000013	0.0865	0.51	1165	0.41	1249.1	19.9	1345	19	2.56	1.9	0.215	1.7	0.86
B-1-09B-19.1c	-0.000004	0.0905	1.25	371	0.08	1196.9	19.8	1438	51	2.58	3.2	0.207	1.7	0.54
B-1-09B-20.1c	0.000033	0.0953	1.52	415	0.29	1257.0	19.8	1526	155	2.86	8.3	0.219	1.3	0.16
B-1-09B-21.1c	-0.000027	0.1080	-0.18	129	0.86	1792.3	25.7	1772	19	4.78	1.8	0.320	1.5	0.82
B-1-09B-22.1c	0.000007	0.0730	-0.41	908	0.05	1107.1	17.4	1011	17	1.88	1.8	0.187	1.6	0.89
B-1-09B-23.1c	0.000014	0.0878	-0.03	1164	0.28	1382.5	30.1	1373	32	2.89	2.8	0.239	2.2	0.80
B-1-09B-24.1c	-0.000010	0.0776	0.71	283	0.05	976.8	13.2	1140	24	1.77	1.8	0.165	1.4	0.76
B-1-09B-25.1c	0.000037	0.1097	2.40	358	0.82	1408.0	19.0	1786	14	3.76	1.6	0.250	1.4	0.87
B-1-09B-26.1r	0.000010	0.0753	0.09	1202	0.24	1058.4	13.2	1074	18	1.85	1.6	0.179	1.3	0.82
B-1-09B-27.1r	0.000021	0.0741	-0.17	1009	0.37	1083.4	13.6	1036	18	1.86	1.6	0.183	1.3	0.82
B-1-09B-28.1r	0.000010	0.0724	-0.38	1022	0.28	1084.5	13.8	994	39	1.82	2.3	0.183	1.3	0.56
B-1-09B-29.1r	0.000011	0.0749	-0.09	1473	0.12	1085.9	13.5	1061	11	1.89	1.4	0.183	1.3	0.92
B-1-09B-30.1r	0.000008	0.0767	-0.80	1677	0.03	1282.3	16.0	1112	34	2.31	2.1	0.218	1.3	0.60

1 Sample names with prefix “m” are monazite, all other samples are zircon. Zircon sample names with suffix “*” analyzed using 6 scans; all other zircon samples analyzed using 4 scans. Abbreviations: c (core), r (rim), p (pointed), d (dark in CL), uz (unzoned).

2 Corrected for common Pb. $^{206}\text{Pb}/^{238}\text{U}$ ages corrected for common Pb using the ^{207}Pb -correction method; $^{207}\text{Pb}/^{206}\text{Pb}$ ages corrected for common Pb using the ^{204}Pb -correction method. Decay constants from Steiger and Jäger (1977).

3 1-sigma errors.

4 Radiogenic ratios, corrected for common Pb using the ^{204}Pb -correction method, based on the Stacey and Kramers (1975) model.