Zurli, L., Cornamusini, G., Woo, J., Liberato, G.P., Han, S., Kim, Y., Talarico, F.M., 2021, Detrital zircons from Late Paleozoic Ice Age sequences in Victoria Land (Antarctica): New constraints on the glaciation of southern Gondwana: GSA Bulletin, <https://doi.org/10.1130/B35905.1>.

Supplemental Material

TABLE S1. LA-ICP-MS RAW DATA OF SAMPLE 22-01-15C3

TABLE S2. LA-ICP-MS RAW DATA OF SAMPLE 03-01-15C3

TABLE S3. LA-ICP-MS RAW DATA OF SAMPLE 04-01-15C10

TABLE S4. LA-ICP-MS RAW DATA OF SAMPLE 22-11-15C5

TABLE S5. GRAIN SHAPE IN RELATION WITH AGE - 22-01-15C3

TABLE S6. GRAIN SHAPE IN RELATION WITH AGE - 03-01-15C3

TABLE S7. GRAIN SHAPE IN RELATION WITH AGE - 04-01-15C10

TABLE S8. GRAIN SHAPE IN RELATION WITH AGE - 22-11-15C5

Supplemental Material contains raw laser ablation–inductively coupled plasma–mass spectrometry (LA-ICP-MS) analysis and detrital zircon grain shape characterization of the late Paleozoic diamictite samples from Victoria Land, Antarctica.

Table S1 reports LA-ICP-MS of the Metschel Tillite sample collected in the Kennar Valley (southern Victoria Land); Table S2 shows LA-ICP-MS data of the Metschel Tillite sample from Elkhorn Ridge (southern Victoria Land); Table S3 reports LA-ICP-MS data of the diamictite collected at Thern Promontory (northern Victoria Land); Table S4 shows LA-ICP-MS data of the diamictite collected at Mt. Nansen (northern Victoria Land). In the tables S1 to S4 barred lines correspond to zircon grains with non-concordant ages that were excluded from the data interpretation.

In the Tables S5 to S8 the zircon grain shape analysis is reported. A shape category (euhedral, subhedral, sub-rounded, rounded) has been assigned to each zircon grain and its age (with the associated error) is reported; zircons with non-concordant ages are barred and the shape was not assigned because they have not been taken into account in the data interpretation. Table S5 refers to the clast-poor, massive diamictite collected from the Metschel Tillite outcrop in the Kennar Valley (southern Victoria Land); Table S2 refers to the clast-poor, massive diamictite collected from the Metschel Tillite outcrop in the Elkhorn Ridge (southern Victoria Land); Table S3 refers to the clast-rich, massive diamictite sample collected at Thern Promontory (northern Victoria Land); Table S4 refers to the clast-poor, weakly stratified diamictite sample collected at Mt. Nansen (northern Victoria Land).

[illegible]

[illegible]

TABLE S4. LA-ICP-MS RAW DATA OF SAMPLE 22-11-15C5

Grand ID	¹ H	² H	³ H	¹³ C	¹⁵ N	¹⁷ O	¹⁹ F	²¹ Ne	²³ Na	²⁵ Mg	²⁷ Al	²⁹ Si	³¹ P	³³ S	³⁵ Cl	³⁷ Ar	³⁹	⁴¹	⁴³	⁴⁵	⁴⁷ V	⁴⁹	⁵¹ Mn	⁵³ Fe	⁵⁵ Co	⁵⁷ Ni	⁵⁹	⁶³ Zn	⁶⁵	⁶⁷	⁶⁹	⁷¹ Se	⁷³ Br	⁷⁵	⁷⁷	⁷⁹	⁸¹ Y	⁸³	⁸⁵	⁸⁷	⁸⁹	⁹¹	⁹³	⁹⁵	⁹⁷	⁹⁹	¹⁰¹	¹⁰³	¹⁰⁵	¹⁰⁷	¹⁰⁹	¹¹¹ Te	¹¹³ I	¹¹⁵ Xe	¹¹⁷ Ba	¹¹⁹ La	¹²¹ Ce	¹²³ Pr	¹²⁵ Nd	¹²⁷ Pm	¹²⁹ Sm	¹³¹ Eu	¹³³ Gd	¹³⁵ Tb	¹³⁷ Dy	¹³⁹ Ho	¹⁴¹ Er	¹⁴³ Tm	¹⁴⁵ Yb	¹⁴⁷ Lu	¹⁴⁹ Hf	¹⁵¹ Ta	¹⁵³ W	¹⁵⁵ Re	¹⁵⁷ Os	¹⁵⁹ Ir	¹⁶¹ Pt	¹⁶³ Au	¹⁶⁵ Hg	¹⁶⁷ Tl	¹⁶⁹ Pb	¹⁷¹ Bi	¹⁷³ Po	¹⁷⁵ At	¹⁷⁷ Pt	¹⁷⁹ Au	¹⁸¹ Hg	¹⁸³ Tl	¹⁸⁵ Pb	¹⁸⁷ Bi	¹⁸⁹ Po	¹⁹¹ At	¹⁹³ Pt	¹⁹⁵ Au	¹⁹⁷ Hg	¹⁹⁹ Tl	²⁰¹ Pb	²⁰³ Bi	²⁰⁵ Po	²⁰⁷ At	²⁰⁹ Pt	²¹¹ Au	²¹³ Hg	²¹⁵ Tl	²¹⁷ Pb	²¹⁹ Bi	²²¹ Po	²²³ At	²²⁵ Pt	²²⁷ Au	²²⁹ Hg	²³¹ Tl	²³³ Pb	²³⁵ Bi	²³⁷ Po	²³⁹ At	²⁴¹ Pt	²⁴³ Au	²⁴⁵ Hg	²⁴⁷ Tl	²⁴⁹ Pb	²⁵¹ Bi	²⁵³ Po	²⁵⁵ At	²⁵⁷ Pt	²⁵⁹ Au	²⁶¹ Hg	²⁶³ Tl	²⁶⁵ Pb	²⁶⁷ Bi	²⁶⁹ Po	²⁷¹ At	²⁷³ Pt	²⁷⁵ Au	²⁷⁷ Hg	²⁷⁹ Tl	²⁸¹ Pb	²⁸³ Bi	²⁸⁵ Po	²⁸⁷ At	²⁸⁹ Pt	²⁹¹ Au	²⁹³ Hg	²⁹⁵ Tl	²⁹⁷ Pb	²⁹⁹ Bi	³⁰¹ Po	³⁰³ At	³⁰⁵ Pt	³⁰⁷ Au	³⁰⁹ Hg	³¹¹ Tl	³¹³ Pb	³¹⁵ Bi	³¹⁷ Po	³¹⁹ At	³²¹ Pt	³²³ Au	³²⁵ Hg	³²⁷ Tl	³²⁹ Pb	³³¹ Bi	³³³ Po	³³⁵ At	³³⁷ Pt	³³⁹ Au	³⁴¹ Hg	³⁴³ Tl	³⁴⁵ Pb	³⁴⁷ Bi	³⁴⁹ Po	³⁵¹ At	³⁵³ Pt	³⁵⁵ Au	³⁵⁷ Hg	³⁵⁹ Tl	³⁶¹ Pb	³⁶³ Bi	³⁶⁵ Po	³⁶⁷ At	³⁶⁹ Pt	³⁷¹ Au	³⁷³ Hg	³⁷⁵ Tl	³⁷⁷ Pb	³⁷⁹ Bi	³⁸¹ Po	³⁸³ At	³⁸⁵ Pt	³⁸⁷ Au	³⁸⁹ Hg	³⁹¹ Tl	³⁹³ Pb	³⁹⁵ Bi	³⁹⁷ Po	³⁹⁹ At	⁴⁰¹ Pt	⁴⁰³ Au	⁴⁰⁵ Hg	⁴⁰⁷ Tl	⁴⁰⁹ Pb	⁴¹¹ Bi	⁴¹³ Po	⁴¹⁵ At	⁴¹⁷ Pt	⁴¹⁹ Au	⁴²¹ Hg	⁴²³ Tl	⁴²⁵ Pb	⁴²⁷ Bi	⁴²⁹ Po	⁴³¹ At	⁴³³ Pt	⁴³⁵ Au	⁴³⁷ Hg	⁴³⁹ Tl	⁴⁴¹ Pb	⁴⁴³ Bi	⁴⁴⁵ Po	⁴⁴⁷ At	⁴⁴⁹ Pt	⁴⁵¹ Au	⁴⁵³ Hg	⁴⁵⁵ Tl	⁴⁵⁷ Pb	⁴⁵⁹ Bi	⁴⁶¹ Po	⁴⁶³ At	⁴⁶⁵ Pt	⁴⁶⁷ Au	⁴⁶⁹ Hg	⁴⁷¹ Tl	⁴⁷³ Pb	⁴⁷⁵ Bi	⁴⁷⁷ Po	⁴⁷⁹ At	⁴⁸¹ Pt	⁴⁸³ Au	⁴⁸⁵ Hg	⁴⁸⁷ Tl	⁴⁸⁹ Pb	⁴⁹¹ Bi	⁴⁹³ Po	⁴⁹⁵ At	⁴⁹⁷ Pt	⁴⁹⁹ Au	⁵⁰¹ Hg	⁵⁰³ Tl	⁵⁰⁵ Pb	⁵⁰⁷ Bi	⁵⁰⁹ Po	⁵¹¹ At	⁵¹³ Pt	⁵¹⁵ Au	⁵¹⁷ Hg	⁵¹⁹ Tl	⁵²¹ Pb	⁵²³ Bi	⁵²⁵ Po	⁵²⁷ At	⁵²⁹ Pt	⁵³¹ Au	⁵³³ Hg	⁵³⁵ Tl	⁵³⁷ Pb	⁵³⁹ Bi	⁵⁴¹ Po	⁵⁴³ At	⁵⁴⁵ Pt	⁵⁴⁷ Au	⁵⁴⁹ Hg	⁵⁵¹ Tl	⁵⁵³ Pb	⁵⁵⁵ Bi	⁵⁵⁷ Po	⁵⁵⁹ At	⁵⁶¹ Pt	⁵⁶³ Au	⁵⁶⁵ Hg	⁵⁶⁷ Tl	⁵⁶⁹ Pb	⁵⁷¹ Bi	⁵⁷³ Po	⁵⁷⁵ At	⁵⁷⁷ Pt	⁵⁷⁹ Au	⁵⁸¹ Hg	⁵⁸³ Tl	⁵⁸⁵ Pb	⁵⁸⁷ Bi	⁵⁸⁹ Po	⁵⁹¹ At	⁵⁹³ Pt	⁵⁹⁵ Au	⁵⁹⁷ Hg	⁵⁹⁹ Tl	<
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Table S5. GRAIN SHAPE IN RELATION WITH AGE - 22-01-15C3

Grain ID	Preferred age (Ma)	2σ (Ma)	Grain shape
C3-1_1	557	10	Subhedral
C3-1_2	538	10	Sub-Rounded
C3-1_3	723	22	Rounded
C3-1_4	524	10	Rounded
C3-1_5	1430	29	Rounded
C3-1_6	567	10	Rounded
C3-1_7	610	13	Rounded
C3-1_8	975	15	Rounded
C3-1_9	1004	12	Rounded
C3-1_10	500	8	Sub-Rounded
C3-1_11	590	13	Rounded
C3-1_12	991	20	Rounded
C3-1_13	582	10	Rounded
C3-1_14	518	8	Rounded
C3-1_15	1443	29	Rounded
C3-1_16	1451	25	Sub-Rounded
C3-1_17	620	12	Rounded
C3-1_18	1072	24	Rounded
C3-1_19	570	8	Rounded
C3-1_20	535	13	Sub-Rounded
C3-1_21	1457	40	Rounded
C3-1_22	1089	18	Sub-Rounded
C3-1_23	594	14	Rounded
C3-1_24	610	9	Rounded
C3-1_25	1428	72	Sub-Rounded
C3-1_26	1821	15	Rounded
C3-1_27	1093	27	Rounded
C3-1_28			
C3-1_29	1069	32	Sub-Rounded
C3-1_30-2	641	10	Sub-Rounded
C3-1_31	681	14	Sub-Rounded
C3-1_32	1352	45	Rounded
C3-1_33			
C3-1_34	612	12	Rounded
C3-1_35	1612	30	Rounded
C3-1_36	537	14	Rounded
C3-1_37	381	16	Euhedral
C3-1_38	1438	22	Subhedral
C3-1_39	1017	93	Sub-Rounded
C3-1_40	856	20	Sub-Rounded
C3-1_41	465	12	Sub-Rounded
C3-1_42	501	10	Subhedral
C3-1_43	1577	22	Sub-Rounded
C3-1_44	1439	22	Subhedral
C3-1_45	542	9	Rounded
C3-1_46			
C3-1_47	1174	26	Rounded
C3-1_48	1422	37	Rounded
C3-1_49	553	10	Rounded
C3-1_50			
C3-1_51	464	9	Rounded
C3-1_52	499	13	Rounded
C3-1_53			
C3-1_54	580	9	Rounded
C3-1_55	507	10	Sub-Rounded
C3-1_56-1	1564	30	Rounded
C3-1_57	513	13	Sub-Rounded
C3-1_58	1209	79	Sub-Rounded
C3-1_59	1455	49	Sub-Rounded
C3-1_60	629	11	Rounded
C3-1_61	571	13	Rounded
C3-1_62	540	16	Sub-Rounded
C3-1_63	564	13	Rounded
C3-1_64	2594	36	Rounded
C3-1_65	538	8	Rounded
C3-1_66-1	576	14	Rounded
C3-1_67	1438	32	Sub-Rounded
C3-1_68	867	10	Rounded
C3-1_69	375	5	Subhedral
C3-1_70	362	5	Euhedral
C3-1_71-2	896	13	Rounded
C3-1_72	582	19	Rounded
C3-1_73	840	19	Rounded
C3-1_74	582	5	Rounded
C3-1_75	1321	58	Rounded
C3-1_76	564	10	Rounded
C3-1_77	545	10	Sub-Rounded
C3-1_78-1	525	10	Sub-Rounded
C3-1_79	545	16	Subhedral
C3-1_80	1573	29	Subhedral
C3-1_81	1145	43	Sub-Rounded
C3-1_82	505	7	Rounded
C3-1_83	528	7	Subhedral
C3-1_84	587	8	Rounded
C3-1_85	528	7	Sub-Rounded
C3-1_86			
C3-1_87	589	16	Sub-Rounded
C3-1_88	514	11	Subhedral
C3-1_89	1409	20	Sub-Rounded
C3-1_90	929	18	Sub-Rounded
C3-1_91	567	13	Sub-Rounded
C3-1_92	1671	28	Rounded
C3-1_93	2662	22	Rounded
C3-1_94			
C3-1_95	1455	26	Rounded
C3-1_96	497	14	Subhedral
C3-1_97	553	9	Rounded
C3-1_98	3253	24	Rounded
C3-1_99-1	584	10	Rounded
C3-1_100	549	9	Rounded
C3-1_101	573	12	Rounded
C3-1_102	526	13	Subhedral
C3-1_103	1243	57	Sub-Rounded
C3-1_104	501	8	Rounded
C3-1_105			
C3-1_106	1061	29	Rounded
C3-1_107	1462	21	Subhedral
C3-1_108-1	432	19	Subhedral
C3-1_109	526	17	Rounded
C3-1_110	1061	35	Sub-Rounded
C3-1_111	1064	74	Sub-Rounded
C3-1_112	1531	12	Rounded
C3-1_113-1	1449	24	Sub-Rounded
C3-1_114	573	13	Rounded
C3-1_115	687	23	Rounded
C3-1_116			
C3-1_117	536	17	Subhedral
C3-1_118	555	10	Rounded
C3-1_119			
C3-1_120	601	10	Sub-Rounded
C3-1_121	1431	36	Rounded
C3-1_122	1573	15	Rounded
C3-1_123	528	17	Sub-Rounded
C3-1_124	1090	18	Rounded
C3-1_125	557	10	Sub-Rounded
C3-1_126	2029	16	Rounded
C3-1_128	1267	56	Subhedral
C3-1_129	382	8	Sub-Rounded
C3-1_130	3082	18	Rounded
C3-1_131	1453	16	Sub-Rounded
C3-1_132	2114	22	Rounded
C3-1_133	1109	14	Rounded
C3-1_134			
C3-1_135	527	12	Subhedral
C3-1_136	501	18	Sub-Rounded
C3-1_137	571	13	Rounded
C3-1_138	517	13	Sub-Rounded
C3-1_139	585	10	Rounded
C3-1_140-1	1423	28	Rounded
C3-1_141	715	13	Rounded
C3-1_142	1078	53	Rounded
C3-1_143	600	19	Sub-Rounded
C3-1_144	515	13	Sub-Rounded
C3-1_145	1223	36	Rounded
C3-1_146	1906	23	Rounded
C3-1_147	1171	35	Rounded
C3-1_148			
C3-1_149	554	10	Sub-Rounded
C3-1_150	551	9	Sub-Rounded

Table S6. GRAIN SHAPE IN RELATION WITH AGE - 03-01-15C3

Grain ID	Preferred age (Ma)	2σ (Ma)	Grain shape
C3-2_1	1083	17	Rounded
C3-2_2	1224	22	Rounded
C3-2_3	585	9	Rounded
C3-2_4	512	12	Sub-Rounded
C3-2_5	851	20	Rounded
C3-2_6	523	12	Subhedral
C3-2_7	515	13	Subhedral
C3-2_8	526	14	Rounded
C3-2_9	786	25	Rounded
C3-2_10	630	16	Rounded
C3-2_11	573	9	Subhedral
C3-2_12	814	23	Rounded
C3-2_13	534	10	Subhedral
C3-2_14	548	15	Rounded
C3-2_15	572	12	Subhedral
C3-2_16	555	11	Subhedral
C3-2_17	525	16	Sub-Rounded
C3-2_18	666	32	Rounded
C3-2_19-1	1452	16	Sub-Rounded
C3-2_20	586	10	Rounded
C3-2_21	584	9	Rounded
C3-2_22	944	16	Rounded
C3-2_23	2238	22	Sub-Rounded
C3-2_24	1107	18	Rounded
C3-2_25	917	17	Sub-Rounded
C3-2_26	2371	16	Rounded
C3-2_27	505	19	Sub-Rounded
C3-2_28	553	10	Sub-Rounded
C3-2_29	831	21	Sub-Rounded
C3-2_30-1	527	11	Rounded
C3-2_31	1454	22	Rounded
C3-2_32	2883	10	Rounded
C3-2_33-2	557	7	Subhedral
C3-2_34	600	16	Rounded
C3-2_35	583	11	Rounded
C3-2_36	608	15	Rounded
C3-2_37	1892	19	Rounded
C3-2_38	1094	80	Rounded
C3-2_39	591	10	Sub-Rounded
C3-2_40	602	12	Rounded
C3-2_41	635	12	Rounded
C3-2_42	976	16	Rounded
C3-2_43	515	17	Rounded
C3-2_44	515	12	Subhedral
C3-2_45	514	15	Rounded
C3-2_46	1583	20	Rounded
C3-2_47	536	8	Sub-Rounded
C3-2_48	586	14	Rounded
C3-2_49	899	14	Sub-Rounded
C3-2_50	1514	79	Rounded
C3-2_51	1774	10	Rounded
C3-2_52	1009	37	Rounded
C3-2_53	1030	55	Rounded
C3-2_54	1077	30	Rounded
C3-2_55	468	11	Subhedral
C3-2_56	1096	16	Rounded
C3-2_57	504	17	Rounded
C3-2_58	709	19	Rounded
C3-2_59	679	13	Rounded
C3-2_60	594	10	Rounded
C3-2_61	523	17	Subhedral
C3-2_62	540	13	Sub-Rounded
C3-2_63	613	10	Rounded
C3-2_64	1457	16	Rounded
C3-2_65	3209	12	Sub-Rounded
C3-2_66	512	12	Subhedral
C3-2_67	539	17	Rounded
C3-2_68	1106	30	Rounded
C3-2_69	715	25	Rounded
C3-2_70	501	18	Subhedral
C3-2_71	831	16	Rounded
C3-2_72-1	524	11	Subhedral
C3-2_73	423	13	Subhedral
C3-2_74	551	11	Rounded
C3-2_75	491	9	Sub-Rounded
C3-2_76	548	13	Rounded
C3-2_77	758	28	Rounded
C3-2_78	506	14	Rounded
C3-2_79	532	12	Subhedral
C3-2_80	913	33	Rounded
C3-2_81			
C3-2_83	1464	15	Rounded
C3-2_84	554	10	Rounded
C3-2_85	1191	41	Rounded
C3-2_86	621	15	Sub-Rounded
C3-2_87	864	37	Rounded
C3-2_88	802	26	Rounded
C3-2_89	1378	29	Rounded
C3-2_90	558	11	Rounded
C3-2_91	524	8	Rounded
C3-2_92	563	9	Rounded
C3-2_93	581	14	Rounded
C3-2_94	501	10	Sub-Rounded
C3-2_95	1793	36	Rounded
C3-2_96	553	10	Rounded
C3-2_97	516	9	Rounded
C3-2_98	546	10	Rounded
C3-2_99	2242	13	Rounded
C3-2_100	1427	19	Subhedral
C3-2_101			
C3-2_102	518	8	Rounded
C3-2_103	1957	13	Rounded
C3-2_104	603	15	Sub-Rounded
C3-2_105	580	11	Rounded
C3-2_106	2249	19	Rounded
C3-2_107	1043	40	Sub-Rounded
C3-2_108	610	12	Rounded
C3-2_109	558	20	Rounded
C3-2_110	618	23	Sub-Rounded
C3-2_111	526	13	Rounded
C3-2_112	534	10	Rounded
C3-2_113	874	21	Rounded
C3-2_114	1063	28	Sub-Rounded
C3-2_115	1661	31	Rounded
C3-2_116	522	10	Subhedral
C3-2_117	1175	32	Rounded
C3-2_118	520	9	Sub-Rounded
C3-2_119	535	10	Rounded
C3-2_120	472	17	Rounded
C3-2_121	731	16	Rounded
C3-2_122	578	12	Rounded
C3-2_123	606	20	Sub-Rounded
C3-2_124	605	9	Rounded
C3-2_125	583	11	Rounded
C3-2_126	542	9	Rounded
C3-2_127	514	8	Subhedral
C3-2_128	510	20	Subhedral
C3-2_129			
C3-2_130	2169	12	Rounded
C3-2_131	676	14	Sub-Rounded
C3-2_132	577	9	Rounded
C3-2_133	768	35	Rounded
C3-2_134	2396	28	Rounded
C3-2_135	579	20	Rounded
C3-2_136	922	23	Sub-Rounded
C3-2_137	2684	12	Rounded
C3-2_138	570	12	Sub-Rounded
C3-2_139	2288	10	Rounded
C3-2_140	629	15	Rounded
C3-2_141	579	13	Rounded
C3-2_142	911	16	Rounded
C3-2_143	1106	31	Rounded
C3-2_144	587	11	Subhedral
C3-2_145	1081	27	Rounded
C3-2_146	588	10	Rounded
C3-2_147	1102	22	Rounded
C3-2_148	501	16	Sub-Rounded
C3-2_149	597	8	Rounded
C3-2_150	553	10	Subhedral

Table S7. GRAIN SHAPE IN RELATION WITH AGE - 04-01-15C10

Grain ID	Preferred age (Ma)	2σ (Ma)	Grain shape
C10_1	511	15	Subhedral
C10_2	485	16	Subhedral
C10_3	498	12	Sub-Rounded
C10_4	460	19	Subhedral
C10_5-1	496	10	Subhedral
C10_6	894	31	Rounded
C10_7	507	11	Euhedral
C10_8	511	12	Sub-Rounded
C10_9			
C10_10			
C10_11	483	10	Sub-Rounded
C10_12	498	9	Sub-Rounded
C10_13	467	9	Sub-Rounded
C10_14	489	8	Subhedral
C10_15	478	9	Subhedral
C10_16	1314	40	Rounded
C10_17	510	12	Subhedral
C10_18	506	14	Euhedral
C10_19			
C10_20			
C10_21-1	497	11	Subhedral
C10_22	499	18	Sub-Rounded
C10_23	494	12	Subhedral
C10_24	916	20	Rounded
C10_25	573	15	Rounded
C10_26	464	9	Subhedral
C10_27	484	14	Sub-Rounded
C10_28	473	19	Sub-Rounded
C10_29	491	8	Sub-Rounded
C10_30			
C10_31-1	505	14	Subhedral
C10_32	518	15	Subhedral
C10_33	836	15	Rounded
C10_34	500	10	Subhedral
C10_35	487	28	Euhedral
C10_36	468	18	Euhedral
C10_37	504	10	Subhedral
C10_38	515	9	Subhedral
C10_39	489	9	Subhedral
C10_40			
C10_41	480	16	Subhedral
C10_42	431	16	Subhedral
C10_43	513	13	Subhedral
C10_44			
C10_45	479	14	Subhedral
C10_46	423	15	Sub-Rounded
C10_47	478	10	Euhedral
C10_48	2346	21	Sub-Rounded
C10_49	481	17	Sub-Rounded
C10_50	464	12	Subhedral
C10_51	520	14	Sub-Rounded
C10_52	483	9	Euhedral
C10_53-2	501	7	Sub-Rounded
C10_54	501	10	Subhedral
C10_55	898	15	Sub-Rounded
C10_56	452	16	Sub-Rounded
C10_57	437	12	Subhedral
C10_58	544	10	Rounded
C10_59	443	15	Subhedral
C10_60	459	12	Subhedral
C10_61	459	9	Subhedral
C10_62	465	17	Subhedral
C10_63	459	11	Subhedral
C10_64			
C10_65	465	10	Subhedral
C10_66	479	12	Subhedral
C10_67	1105	49	Rounded
C10_68	471	9	Sub-Rounded
C10_69	463	9	Sub-Rounded
C10_70	1076	45	Rounded
C10_71	461	8	Subhedral
C10_72	467	15	Sub-Rounded
C10_73	453	24	Subhedral
C10_74	448	16	Sub-Rounded
C10_75	441	19	Subhedral
C10_76-1	498	19	Subhedral
C10_77	470	16	Subhedral
C10_78	464	14	Subhedral
C10_79	439	18	Sub-Rounded
C10_80-1	478	11	Sub-Rounded
C10_81	442	11	Subhedral
C10_82	481	12	Subhedral
C10_83	439	15	Subhedral
C10_84	506	12	Subhedral
C10_85	504	9	Subhedral
C10_86	470	10	Subhedral
C10_87	452	9	Euhedral
C10_88	469	10	Sub-Rounded
C10_89			
C10_90-2	468	9	Sub-Rounded
C10_91	487	14	Sub-Rounded
C10_92	458	14	Subhedral
C10_93	911	20	Rounded
C10_94	460	26	Subhedral
C10_95	1255	32	Rounded
C10_96			
C10_97	461	18	Subhedral
C10_98	510	8	Subhedral
C10_99	481	13	Subhedral
C10_100	506	10	Sub-Rounded
C10_101	485	10	Subhedral
C10_102	533	9	Sub-Rounded
C10_103	482	8	Subhedral
C10_104	462	15	Sub-Rounded
C10_105	500	15	Subhedral
C10_106	499	10	Subhedral
C10_107	414	11	Subhedral
C10_108	448	15	Subhedral
C10_109			
C10_110			
C10_111	482	13	Sub-Rounded
C10_112	495	11	Subhedral
C10_113	466	26	Subhedral
C10_114	440	20	Sub-Rounded
C10_115-1	496	11	Subhedral
C10_116	483	13	Subhedral
C10_117	495	10	Sub-Rounded
C10_118	448	9	Subhedral
C10_119	497	6	Euhedral
C10_120			
C10_121	1144	85	Subhedral
C10_122	509	8	Subhedral
C10_123	520	10	Subhedral
C10_124	492	10	Euhedral
C10_125	468	18	Euhedral
C10_126			
C10_127	488	10	Subhedral
C10_128	481	11	Subhedral
C10_129	465	12	Subhedral
C10_130	528	8	Subhedral
C10_131	504	10	Sub-Rounded
C10_132			
C10_133			
C10_134	493	11	Euhedral
C10_135			
C10_136	488	10	Subhedral
C10_137	474	15	Subhedral
C10_138	477	20	Subhedral
C10_139	499	9	Rounded
C10_140	491	12	Subhedral
C10_141	492	25	Subhedral
C10_142	457	7	Sub-Rounded
C10_143			
C10_144	472	9	Subhedral
C10_145			
C10_146			
C10_147	500	8	Subhedral
C10_148	463	7	Subhedral
C10_149	498	20	Subhedral
C10_150-2	530	14	Subhedral

Table S8. GRAIN SHAPE IN RELATION WITH AGE - 22-11-15C5

Grain ID	Preferred age (Ma)	2σ (Ma)	Grain shape
C5_4			
C5_2	2705	21	Rounded
C5_3			
C5_4	1213	55	ND*
C5_5	645	13	ND*
C5_6	2261	25	ND*
C5_7	1810	36	ND*
C5_8	728	30	ND*
C5_9	2191	16	ND*
C5_40			
C5_11	2216	32	Rounded
C5_12	2581	11	Sub-Rounded
C5_43			
C5_44			
C5_45			
C5_16	1110	25	Subhedral
C5_17	1052	62	Subhedral
C5_18	2062	38	Rounded
C5_19	1081	24	Subhedral
C5_20	1064	28	Sub-Rounded
C5_21	494	9	Euhedral
C5_22	2054	11	Sub-Rounded
C5_23	564	21	Subhedral
C5_24	1855	34	Sub-Rounded
C5_25	2184	18	Subhedral
C5_26	2274	10	Sub-Rounded
C5_27			
C5_28			
C5_29	1127	57	Subhedral
C5_30	494	9	Subhedral
C5_31	1113	42	Rounded
C5_32	1173	80	Rounded
C5_33			
C5_34	1188	26	Sub-Rounded
C5_35			
C5_36	606	18	Rounded
C5_37	2067	18	Sub-Rounded
C5_38	2296	11	Rounded
C5_39			
C5_40	2296	21	Rounded
C5_41	2264	10	Rounded
C5_42	1882	28	Rounded
C5_43	579	29	Subhedral
C5_44	1103	35	Sub-Rounded
C5_45	2586	18	Rounded
C5_46			
C5_47			
C5_48	1079	28	Subhedral
C5_49	2463	10	Sub-Rounded
C5_50	501	15	Subhedral
C5_51	1124	61	Sub-Rounded
C5_52	2435	48	Rounded
C5_53	918	17	Subhedral
C5_54	614	19	Rounded
C5_55			
C5_56	983	21	Sub-Rounded
C5_57	1197	20	Subhedral
C5_58	2376	17	Rounded
C5_59	2436	17	Rounded
C5_60			
C5_61	1175	50	Sub-Rounded
C5_62	1849	44	Sub-Rounded
C5_63	1069	33	Rounded
C5_64	1100	100	Sub-Rounded
C5_65	1029	41	Sub-Rounded
C5_66	2245	18	Rounded
C5_67	504	17	Sub-Rounded
C5_68			
C5_69			
C5_70	2596	33	Rounded
C5_71	1223	35	Sub-Rounded
C5_72	1275	36	Sub-Rounded
C5_73	2374	16	Rounded
C5_74	1197	20	Sub-Rounded
C5_75	1102	23	Rounded
C5_76	1093	49	Rounded
C5_77	2301	19	Rounded
C5_78			
C5_79	2122	27	Rounded
C5_80			
C5_81	1288	62	Rounded
C5_82	589	11	Sub-Rounded
C5_83	2286	13	Subhedral
C5_84			
C5_85	1924	19	Rounded
C5_86	1998	21	Rounded
C5_87	1089	28	Rounded
C5_88	2425	13	Rounded
C5_89	1990	14	Rounded
C5_90			
C5_91	611	7	Rounded
C5_92			
C5_93			
C5_94	1055	41	Rounded
C5_95	2248	17	Rounded
C5_96	1176	23	Sub-Rounded
C5_97	1279	32	Sub-Rounded
C5_98	1990	13	Sub-Rounded
C5_99	1130	23	Rounded
C5_100	531	16	Euhedral
C5_101	2278	13	Rounded
C5_102	2510	25	Rounded
C5_103	2178	17	Rounded
C5_104			
C5_105			
C5_106	2651	30	Rounded
C5_107	2698	18	Rounded
C5_108	1123	31	Rounded
C5_109			
C5_110	613	11	Rounded
C5_111	2421	17	Rounded
C5_112	2051	16	Subhedral
C5_113	429	11	Subhedral
C5_114			
C5_115	1191	31	Sub-Rounded
C5_116	2442	11	Rounded
C5_117	1112	34	Rounded
C5_118			
C5_119			
C5_120			
C5_121	2450	15	Rounded
C5_122			
C5_123			
C5_124	2277	29	Rounded
C5_125	1061	25	Rounded
C5_126	510	7	Subhedral
C5_127	2283	8	Rounded
C5_128	1099	50	Rounded
C5_129	1074	24	Subhedral
C5_130	1283	24	Subhedral

*N.D. = not determined.