

APPENDIX IV

LA-ICP-MS Generated U, Th and Pb Elemental, Isotopic and Age Data for Selected Granitoids on the Farm Gotha.

Footnote to all tables:

Data is sorted in order of decreasing age.

All uncertainties in ages are at 2 standard deviations.

Last column labelled "Conc." reflects the degree of concordance of the analysis as a percentage.

Sample spots preceded by an "A" are analyses done using a 50 micron spot in session number 2.

Sample spots preceded by a "B" are analyses done using a 50 micron spot in session number 1.

Table A1: D201

Sample Spot	Pb rad. ppm	Th ppm	U ppm	Th/U	208Pb/206Pb Ratio	206Pb/238U Ratio	R.S.D.	207Pb/235U Ratio	R.S.D.	207Pb/206Pb Ratio	R.S.D.	206Pb/238U AGE (Ma)	2σ	207Pb/235U AGE (Ma)	2σ	207Pb/206Pb AGE (Ma)	2σ	Conc. %
A37.1	981	772	4475	0.17	0.4574	0.1480	1.63%	5.338	1.54%	0.2613	0.35%	890	27	1875	26	3254	12	27
26.1	1326	269	5418	0.05	0.3667	0.1766	1.24%	5.896	1.08%	0.2419	0.66%	1048	24	1961	19	3132	22	33
A29.1	1201	1011	3756	0.27	0.3849	0.2282	0.57%	7.596	0.57%	0.2412	0.21%	1325	14	2184	10	3126	6	42
A34.1	829	668	2435	0.27	0.3614	0.2468	1.22%	8.162	1.31%	0.2396	0.39%	1422	31	2249	24	3116	12	46
B2.1	1984	1716	9967	0.17	0.4709	0.1352	3.38%	4.427	3.44%	0.2373	0.51%	818	52	1717	57	3100	16	26
19.1	1442	210	3460	0.06	0.3563	0.3062	2.00%	9.452	2.02%	0.2236	0.30%	1722	61	2383	37	3006	8	57
17.1	2207	2220	6436	0.34	0.3098	0.2606	0.49%	7.832	0.45%	0.2178	0.39%	1493	13	2212	8	2964	14	50
B1.1	1337	2196	2681	0.82	0.3800	0.3626	0.49%	10.838	0.62%	0.2166	0.43%	1995	17	2509	12	2954	14	68
A20.1	271	145	686	0.21	0.2021	0.3260	1.31%	9.309	1.28%	0.2070	0.89%	1819	41	2369	24	2880	30	63
25.1	1269	2219	8276	0.27	0.2999	0.1182	0.83%	3.366	0.87%	0.2063	0.36%	720	11	1497	14	2876	12	25
24.1	1467	315	3970	0.08	0.2940	0.2861	2.09%	8.130	2.13%	0.2059	0.36%	1622	60	2246	38	2872	12	56
A17.1	317	151	679	0.22	0.1838	0.3919	1.19%	10.907	2.50%	0.2018	1.75%	2132	43	2515	46	2840	58	75
B9.1	834	964	2853	0.34	0.3434	0.2200	1.24%	6.033	1.50%	0.1988	0.38%	1282	29	1981	26	2816	14	46
A9.1	1008	193	2181	0.09	0.2932	0.3609	0.50%	9.628	0.48%	0.1933	0.26%	1987	17	2400	9	2770	8	72
A26.1	1291	438	3689	0.12	0.2749	0.2771	0.88%	7.331	0.90%	0.1917	0.23%	1577	25	2153	16	2756	8	57
A6.1	697	112	2345	0.05	0.2866	0.2337	0.51%	6.154	0.49%	0.1908	0.29%	1354	13	1998	9	2748	10	49
A8.1	792	468	3096	0.15	0.3027	0.1990	0.51%	5.228	0.65%	0.1904	0.29%	1170	11	1857	11	2744	10	43
A14.1	1580	416	6620	0.06	0.2935	0.1876	0.73%	4.750	0.71%	0.1835	0.24%	1108	15	1776	12	2684	8	41
27.1	891	52	1866	0.03	0.2326	0.3925	0.58%	9.812	0.59%	0.1811	0.22%	2135	21	2417	11	2662	8	80
2.1	1573	182	4883	0.04	0.3139	0.2504	1.67%	6.221	1.61%	0.1801	0.48%	1441	43	2007	28	2652	16	54
9.1	1684	47	5492	0.01	0.2853	0.2431	0.71%	6.017	0.73%	0.1794	0.34%	1403	18	1978	13	2646	12	53
30.1	2185	143	7377	0.02	0.3433	0.2262	1.64%	5.515	1.44%	0.1766	0.57%	1314	39	1903	25	2620	18	50
16.1	1754	69	3556	0.02	0.3014	0.3878	1.85%	9.370	1.83%	0.1751	0.41%	2112	67	2375	34	2606	12	81
A5.1	260	376	433	0.87	0.2627	0.4850	0.80%	11.636	1.87%	0.1739	1.28%	2549	34	2576	35	2594	44	98
20.1	993	111	2016	0.06	0.2605	0.4001	1.01%	9.374	0.99%	0.1698	0.39%	2169	37	2375	18	2554	12	85
18.1	1142	106	7483	0.01	0.2337	0.1263	0.71%	2.959	0.64%	0.1698	0.44%	767	10	1397	10	2554	14	30
28.1	2172	1661	5050	0.33	0.3214	0.3352	3.04%	7.789	3.09%	0.1684	0.35%	1863	98	2207	56	2540	12	73
A21.1	309	469	614	0.76	0.2367	0.4163	0.82%	9.607	1.08%	0.1673	0.64%	2243	31	2398	20	2530	22	89

Sample	Pb rad.	Th	U	Th/U	208Pb/206Pb	206Pb/238U	207Pb/235U	207Pb/206Pb	206Pb/238U	207Pb/235U	207Pb/206Pb	Conc.						
Spot	ppm	ppm	ppm	Ratio	Ratio	R.S.D.	Ratio	R.S.D.	AGE (Ma)	2 σ	AGE (Ma)	2 σ	AGE (Ma)	2 σ	%			
23.1	2248	164	5495	0.03	0.3034	0.3232	0.65%	7.404	0.62%	0.1660	0.45%	1805	21	2161	11	2516	16	72
A30.1	1666	899	4410	0.20	0.3037	0.2987	1.42%	6.806	1.42%	0.1651	0.29%	1685	42	2086	25	2508	10	67
A40.1	1965	233	2964	0.08	0.3012	0.5258	0.84%	11.812	0.81%	0.1628	0.27%	2724	37	2590	15	2484	10	110
B5.1	4915	326	8861	0.04	0.3347	0.4304	2.64%	9.587	2.72%	0.1615	0.24%	2307	102	2396	50	2470	8	93
B6.1	2700	3741	21068	0.18	0.2944	0.1024	2.02%	2.243	1.69%	0.1587	0.56%	629	24	1195	24	2440	18	26
A33.1	2143	3940	3320	1.19	0.2608	0.5281	0.61%	11.566	0.61%	0.1587	0.19%	2733	27	2570	11	2440	6	112
22.1	2135	368	5651	0.07	0.2573	0.3104	0.77%	6.707	0.85%	0.1565	0.43%	1743	23	2074	15	2418	14	72
A28.1	884	111	1516	0.07	0.2320	0.4877	0.47%	10.512	0.46%	0.1562	0.26%	2561	20	2481	9	2414	8	106
B7.1	2223	257	2702	0.10	0.2706	0.6707	0.93%	14.284	0.93%	0.1544	0.22%	3309	48	2769	18	2394	8	138
A13.1	2028	125	2661	0.05	0.2260	0.6424	1.39%	13.494	1.42%	0.1522	0.17%	3198	70	2715	27	2370	6	135
A36.1	2833	147	4067	0.04	0.2674	0.5698	1.07%	11.965	1.05%	0.1521	0.23%	2907	50	2602	20	2370	8	123
A35.1	3373	990	7483	0.13	0.2495	0.3740	0.85%	7.756	0.89%	0.1503	0.22%	2048	30	2203	16	2348	8	87
15.1	2995	315	7679	0.04	0.2508	0.3235	1.05%	6.680	0.79%	0.1496	0.79%	1807	33	2070	14	2340	28	77
A27.1	3319	257	4081	0.06	0.2855	0.6580	1.35%	13.582	1.30%	0.1496	0.20%	3259	69	2721	25	2340	8	139
B3.1	3142	301	3935	0.08	0.2859	0.6461	0.78%	13.307	0.62%	0.1493	0.29%	3213	39	2702	12	2336	10	138
A18.1	1329	58	1420	0.04	0.2268	0.7910	0.44%	16.122	0.42%	0.1478	0.22%	3757	25	2884	8	2320	6	162
A22.1	2051	94	4327	0.02	0.2506	0.3940	0.96%	7.985	0.98%	0.1469	0.21%	2141	35	2229	18	2310	6	93
29.1	1047	108	1993	0.05	0.2406	0.4398	1.90%	8.894	2.00%	0.1465	0.45%	2350	75	2327	36	2304	16	102
A25.1	2663	143	3046	0.05	0.2381	0.7335	1.11%	14.809	1.14%	0.1463	0.23%	3547	60	2803	22	2302	8	154
A7.1	1343	46	7133	0.01	0.2272	0.1593	2.42%	3.203	2.40%	0.1457	0.30%	953	43	1458	37	2294	10	42
A23.1	715	51	1749	0.03	0.1241	0.3746	0.74%	7.491	0.73%	0.1449	0.41%	2051	26	2172	13	2286	14	90
5.1	4610	153	6952	0.02	0.2595	0.5484	2.64%	10.950	2.73%	0.1447	0.83%	2819	121	2519	51	2284	28	123
B8.1	4128	910	15949	0.06	0.2633	0.2135	0.87%	4.261	0.75%	0.1447	0.41%	1247	20	1686	12	2282	14	55
1.1	3691	342	9900	0.03	0.2450	0.3119	1.52%	6.172	1.50%	0.1434	0.73%	1750	47	2001	26	2268	24	77
A10.1	3111	169	4232	0.04	0.2344	0.6199	2.57%	12.254	2.60%	0.1432	0.22%	3110	127	2624	49	2266	8	137
A19.1	2442	1300	5663	0.23	0.2396	0.3623	1.65%	7.144	1.59%	0.1429	0.28%	1993	56	2130	28	2262	8	88
A1.1	2286	2115	4331	0.49	0.2245	0.4485	1.76%	8.822	1.77%	0.1425	0.19%	2389	70	2320	32	2258	6	106
21.1	3134	3847	14323	0.27	0.2591	0.1814	1.61%	3.552	0.98%	0.1419	0.90%	1074	32	1539	16	2250	32	48
A2.1	2449	178	2884	0.06	0.2211	0.7243	0.59%	14.053	0.57%	0.1406	0.21%	3512	32	2753	11	2234	6	157
A39.1	937	3708	5176	0.72	0.3882	0.1375	1.74%	2.669	1.81%	0.1407	0.43%	830	27	1320	27	2234	16	37
A38.1	840	116	2911	0.04	0.2650	0.2386	0.79%	4.612	0.73%	0.1401	0.44%	1379	20	1752	12	2228	14	62
A15.1	3564	1319	8511	0.16	0.2599	0.3475	4.72%	6.693	4.91%	0.1396	0.25%	1923	157	2072	87	2220	10	87
A24.1	2614	230	2310	0.10	0.2384	0.9549	0.98%	18.173	0.90%	0.1379	0.20%	4321	62	2999	17	2200	8	196
B4.1	4038	1328	18777	0.07	0.2441	0.1808	0.78%	3.427	0.72%	0.1374	0.44%	1071	15	1511	11	2194	16	49
7.1	3895	582	20339	0.03	0.1811	0.1689	4.09%	3.179	4.01%	0.1365	0.90%	1006	76	1452	62	2182	32	46
4.1	5890	675	11346	0.06	0.2046	0.4581	1.08%	7.088	0.90%	0.1121	1.14%	2431	44	2122	16	1834	42	133
14.1	4477	513	18100	0.03	0.2052	0.2182	1.56%	3.369	1.24%	0.1119	1.24%	1273	36	1497	19	1828	44	70
3.1	6919	8758	15575	0.56	0.2241	0.3870	1.46%	5.839	1.68%	0.1094	1.17%	2109	53	1952	29	1788	42	118
6.1	5773	1402	10258	0.14	0.1867	0.5056	0.90%	7.444	0.89%	0.1067	0.24%	2638	39	2166	16	1744	10	151
8.1	6794	2225	8194	0.27	0.1900	0.7438	1.22%	10.803	1.27%	0.1053	0.32%	3585	67	2506	24	1718	12	209
13.1	5727	415	11172	0.04	0.1855	0.4619	1.01%	6.635	0.90%	0.1041	0.55%	2448	41	2064	16	1698	20	144
12.1	6041	1148	11654	0.10	0.1867	0.4683	0.82%	6.432	0.80%	0.0995	0.26%	2476	34	2037	14	1614	10	153

Sample	Pb rad.	Th	U	Th/U	208Pb/206Pb	206Pb/238U	207Pb/235U	207Pb/206Pb	206Pb/238U	207Pb/235U	207Pb/206Pb	Conc.						
Spot	ppm	ppm	ppm		Ratio	Ratio	R.S.D.	Ratio	R.S.D.	Ratio	R.S.D.	AGE (Ma)	2 σ	AGE (Ma)	2 σ	AGE (Ma)	2 σ	%

Table A2: D403

Sample	Pb rad.	Th	U	Th/U	208Pb/206Pb	206Pb/238U	207Pb/235U	207Pb/206Pb	206Pb/238U	207Pb/235U	207Pb/206Pb	Conc.						
Spot	ppm	ppm	ppm		Ratio	Ratio	R.S.D.	Ratio	R.S.D.	Ratio	R.S.D.	AGE (Ma)	2 σ	AGE (Ma)	2 σ	AGE (Ma)	2 σ	%
B24.1	873	268	2223	0.12	0.5433	0.2555	1.67%	8.470	1.33%	0.2402	1.01%	1467	44	2283	24	3120	32	47
A12.1	145	177	234	0.75	0.1971	0.5029	0.78%	16.033	0.78%	0.2313	0.46%	2626	34	2879	15	3060	16	86
A23.1	406	2007	1947	1.03	0.4067	0.1478	2.38%	4.664	2.02%	0.2290	0.58%	888	40	1761	34	3044	20	29
A19.1	409	143	2163	0.07	0.3763	0.1374	1.16%	4.221	1.21%	0.2228	0.52%	830	18	1678	20	3000	16	28
A2.1	360	324	1572	0.21	0.3858	0.1653	1.37%	5.079	1.60%	0.2227	0.61%	986	25	1833	27	3000	20	33
A1.1	305	147	1491	0.10	0.2280	0.1641	0.69%	5.015	0.58%	0.2215	0.32%	979	13	1822	10	2990	10	33
A3.1	463	4595	3048	1.51	0.4434	0.1060	1.83%	3.238	2.46%	0.2213	0.68%	650	23	1466	38	2988	22	22
A9.1	359	539	1171	0.46	0.2796	0.2375	1.94%	7.182	3.05%	0.2194	1.70%	1374	48	2134	54	2976	54	46
A17.1	231	804	3404	0.24	0.4753	0.0465	2.29%	1.401	3.59%	0.2184	1.17%	293	13	889	43	2968	36	10
A2.1	380	2146	1229	1.75	0.4393	0.2169	0.98%	6.414	0.56%	0.2146	0.66%	1266	23	2034	10	2940	22	43
A16.1	321	78	2126	0.04	0.2913	0.1172	1.12%	3.315	1.13%	0.2050	0.60%	715	15	1485	18	2866	20	25
A10.1	268	3551	671	5.30	0.3239	0.3040	1.31%	8.584	1.27%	0.2049	0.65%	1711	39	2295	23	2864	22	60
B15.1	506	71	2338	0.03	0.3045	0.1669	0.69%	4.634	0.76%	0.2012	0.78%	995	13	1755	13	2836	26	35
A24.1	330	449	1585	0.28	0.2760	0.1638	1.14%	4.513	1.29%	0.1999	0.65%	978	21	1733	21	2824	22	35
B2.1	397	628	2227	0.28	0.3517	0.1334	0.75%	3.676	0.81%	0.1997	0.50%	807	11	1566	13	2822	18	29
B3.1	513	90	2284	0.04	0.2517	0.1806	0.73%	4.817	0.86%	0.1933	0.48%	1070	14	1788	14	2770	16	39
B6.1	218	241	694	0.35	0.1947	0.2647	0.76%	6.600	0.84%	0.1807	0.58%	1514	20	2059	15	2658	20	57
A11.1	221	1071	1513	0.71	0.2164	0.1216	1.76%	3.021	1.58%	0.1802	0.43%	740	25	1413	24	2654	14	28
B33.1	540	449	2043	0.22	0.2698	0.2121	1.70%	5.204	1.69%	0.1778	0.46%	1240	38	1853	29	2632	16	47
B11.1	390	109	1540	0.07	0.2080	0.2127	1.21%	5.114	0.99%	0.1743	0.56%	1243	27	1838	17	2598	18	48
A5.1	287	191	944	0.20	0.1579	0.2653	0.93%	6.363	0.96%	0.1738	0.31%	1517	25	2027	17	2594	10	58
B5.1	255	412	922	0.45	0.2488	0.2265	1.31%	5.350	2.72%	0.1712	1.74%	1316	31	1877	46	2568	60	51
A18.1	256	410	609	0.67	0.1491	0.3704	0.95%	8.725	0.97%	0.1709	0.49%	2031	33	2310	18	2566	16	79
B14.1	307	324	1476	0.22	0.1773	0.1791	1.25%	4.226	1.02%	0.1710	0.64%	1062	24	1679	17	2566	22	41
B4.1	150	134	380	0.35	0.1097	0.3585	1.05%	8.406	1.03%	0.1700	0.60%	1975	36	2276	19	2556	20	77
A21.1	223	490	645	0.76	0.1964	0.2955	1.60%	6.777	1.55%	0.1664	0.47%	1669	47	2083	27	2520	16	66
B12.1	372	190	1415	0.13	0.1338	0.2361	0.45%	5.236	0.60%	0.1607	0.39%	1367	11	1858	10	2462	12	56
A13.1	365	280	3489	0.08	0.2020	0.0896	2.16%	1.922	1.78%	0.1555	0.89%	553	23	1089	24	2406	30	23
A8.1	2285	998	6007	0.17	0.2062	0.3307	1.53%	5.928	1.56%	0.1301	0.22%	1842	49	1965	27	2098	8	88
A15.1	36	45	370	0.12	0.1539	0.0916	1.48%	1.080	2.17%	0.0855	1.89%	565	16	744	23	1324	72	43
A6.1	105	518	686	0.75	0.1736	0.1428	3.21%	1.462	3.89%	0.0743	1.37%	861	52	915	47	1048	54	82
A7.1	56	168	554	0.30	0.1408	0.0961	1.14%	0.959	1.41%	0.0724	1.36%	591	13	683	14	996	54	59

Table A3: OR03

Sample	Pb rad.	Th	U	Th/U	208Pb/206Pb	206Pb/238U	207Pb/235U	207Pb/206Pb	206Pb/238U	207Pb/235U	207Pb/206Pb	Conc.						
Spot	ppm	ppm	ppm		Ratio	Ratio	R.S.D.	Ratio	R.S.D.	Ratio	R.S.D.	AGE (Ma)	2 σ	AGE (Ma)	2 σ	AGE (Ma)	2 σ	%
A1.1	126	81	158	0.52	0.2415	0.6259	1.40%	21.212	1.26%	0.2458	0.46%	3134	70	3148	24	3158	14	99
16.1	657	617	5134	0.12	0.4036	0.0915	2.01%	2.760	2.08%	0.2184	0.34%	564	22	1345	31	2968	12	19

Sample Spot	Pb rad. ppm	Th ppm	U ppm	Th/U	208Pb/206Pb Ratio	206Pb/238U Ratio	R.S.D.	207Pb/235U Ratio	R.S.D.	207Pb/206Pb Ratio	R.S.D.	206Pb/238U AGE (Ma)	2 σ	207Pb/235U AGE (Ma)	2 σ	207Pb/206Pb AGE (Ma)	2 σ	Conc. %
20.1	578	431	8954	0.05	0.2899	0.0501	1.31%	1.430	1.63%	0.2068	0.40%	315	8	901	20	2880	12	11
14.1	1505	137	5763	0.02	0.4109	0.1887	0.57%	5.079	0.62%	0.1949	0.29%	1114	12	1833	11	2782	10	40
6.1	535	176	5008	0.04	0.3103	0.0827	0.45%	2.176	0.49%	0.1906	0.28%	512	4	1173	7	2746	10	19
A6.1	863	1613	4781	0.34	0.3832	0.1334	1.51%	3.460	1.63%	0.1880	0.32%	807	23	1518	26	2724	10	30
A9.1	500	175	2525	0.07	0.2115	0.1648	0.94%	4.184	1.05%	0.1841	0.47%	983	17	1671	17	2688	14	37
5.1	218	806	1057	0.76	0.2559	0.1665	0.61%	4.165	0.80%	0.1813	0.83%	993	11	1667	13	2664	28	37
A7.1	236	936	817	1.15	0.2325	0.2383	1.81%	5.772	2.01%	0.1756	0.59%	1378	45	1942	35	2610	20	53
18.1	838	50	3901	0.01	0.2815	0.1711	1.41%	4.147	1.38%	0.1756	0.26%	1018	27	1664	23	2610	10	39
19.1	346	32	2023	0.02	0.2093	0.1439	1.33%	3.419	1.39%	0.1722	0.39%	867	22	1509	22	2578	12	34
17.1	565	107	1233	0.09	0.2377	0.3782	0.58%	8.897	0.61%	0.1703	0.34%	2068	20	2327	11	2560	12	81
9.1	201	496	693	0.72	0.2069	0.2453	1.12%	5.693	1.09%	0.1681	0.68%	1414	28	1930	19	2538	24	56
13.1	911	1075	6278	0.17	0.4365	0.1050	3.90%	2.423	3.63%	0.1671	0.48%	644	48	1249	52	2528	16	25
A4.1	711	71	1667	0.04	0.2347	0.3537	0.80%	8.072	0.83%	0.1654	0.43%	1952	27	2239	15	2510	14	78
4.1	202	530	809	0.65	0.1800	0.2156	0.65%	4.845	1.16%	0.1629	0.76%	1259	15	1793	19	2484	26	51
11.1	237	442	928	0.48	0.1973	0.2180	0.54%	4.848	0.53%	0.1610	0.62%	1272	12	1793	9	2466	22	52
A11.1	210	387	569	0.68	0.2408	0.3061	1.08%	6.714	1.38%	0.1590	0.99%	1721	33	2074	24	2444	32	70
A5.1	519	83	1424	0.06	0.1961	0.3131	0.51%	6.720	0.53%	0.1555	0.25%	1756	16	2075	9	2406	8	73
1.1	732	516	5141	0.10	0.2072	0.1219	1.19%	2.533	1.27%	0.1506	0.42%	741	17	1282	18	2352	14	32
A10.1	1324	320	3012	0.11	0.2193	0.3739	2.13%	7.577	2.29%	0.1469	0.35%	2047	75	2182	41	2308	12	89
12.1	1166	1148	6464	0.18	0.4283	0.1331	0.96%	2.659	1.04%	0.1446	0.21%	805	15	1317	15	2282	8	35
A15.1	522	859	2985	0.29	0.1240	0.1621	1.50%	2.919	1.32%	0.1305	0.76%	969	27	1387	20	2104	28	46
15.1	607	83	4082	0.02	0.0402	0.1481	2.33%	2.621	2.34%	0.1281	0.50%	891	39	1306	34	2070	18	43
A2.1	1064	1323	5389	0.25	0.2452	0.1682	3.83%	2.746	4.21%	0.1184	0.93%	1002	71	1341	63	1932	34	52

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