



Unravelling the tectonic framework of the Musgrave Province, central Australia

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Appendix 2

**Geochemistry, isotopic composition,
geochronological data, and zircon CL pictures
of metasedimentary rocks from the
eastern Musgrave Province**

Table 1 - Geochemical data

Sample	594	596	563	564	567	695	767	476	525	529	PAAS
Eastings	258502	250493	252100	252100	257283	254229	258379	281983	278880	285173	
Northings	7091849	7092182	7085101	7085101	7070194	7078772	7092022	7112237	7113976	7105867	
Group	Pna1	Pna1	Pna2	Pna2	Pna2	Pna2	Pna2	Pna3	Pna3	Pna3	
SiO ₂	66.00	63.90	76.00	48.70	41.00	61.30	61.00	50.10	51.10	54.10	62.80
Al ₂ O ₃	14.40	16.30	10.70	14.00	16.40	18.50	17.40	14.50	15.70	24.20	18.90
Fe ₂ O ₃	4.96	6.10	4.19	13.40	16.40	9.52	9.33	10.80	15.30	10.70	7.22
MnO	0.11	0.15	0.08	0.29	0.18	0.17	0.35	0.17	0.30	0.19	0.11
MgO	1.26	1.82	0.96	9.70	9.15	2.53	2.52	2.04	5.60	3.50	2.20
CaO	4.20	1.45	2.08	11.50	13.70	1.04	2.16	18.80	6.69	1.04	1.30
Na ₂ O	2.71	2.66	1.56	1.61	1.19	0.97	1.68	0.54	3.06	1.12	1.20
K ₂ O	3.09	4.66	3.61	0.63	0.52	3.56	3.20	0.14	0.73	3.41	3.70
TiO ₂	0.52	0.67	0.52	0.60	0.91	0.75	0.81	1.32	1.42	1.05	1.00
P ₂ O ₅	0.08	0.05	0.06	0.22	0.03	0.06	0.08	0.36	0.19	0.07	0.16
LOI	1.89	0.59	1.09	0.34	0.66	0.43	0.86	2.23	0.29	1.54	6.00
Total %	99.22	98.35	100.85	100.99	100.14	98.83	99.39	101.00	100.38	100.92	104.59
Ga	24.00	25.00	14.00	26.00	22.50	23.00	23.00	30.00	24.50	38.50	-
Co	10.00	49.50	68.00	82.00	86.00	58.00	78.00	56.00	60.00	52.00	23.00
Ni	16.00	32.00	8.00	120.00	100.00	22.00	35.00	76.00	66.00	54.00	55.00
Cu	13.00	18.50	17.50	24.00	200.00	28.50	155.00	11.50	11.00	86.00	50.00
Zn	54.00	96.00	45.50	115.00	82.00	96.00	94.00	66.00	135.00	150.00	85.00
Y	25.50	36.00	39.50	44.00	7.50	58.00	50.00	41.00	22.50	20.00	27.00
Rb	66.00	190.00	100.00	12.50	10.00	125.00	145.00	6.50	5.50	98.00	160.00
Th	10.00	13.00	11.00	1.60	1.05	16.00	15.50	1.50	0.54	30.00	14.60
U	0.61	0.58	0.69	0.22	0.24	0.81	0.92	9.50	0.10	0.92	3.10
Nb	8.50	10.00	5.50	5.00	1.00	9.00	8.00	20.00	5.00	18.50	19.00
Pb	27.00	32.00	26.50	5.00	4.00	24.50	24.00	8.50	4.50	25.50	-
Sr	380.00	170.00	220.00	360.00	340.00	160.00	175.00	390.00	280.00	130.00	200.00
La	52.00	43.50	38.00	16.00	3.00	46.00	44.00	15.00	8.50	84.00	38.00
Ce	82.00	64.00	62.00	37.50	6.50	78.00	78.00	21.50	14.00	140.00	80.00
Pr	10.00	8.00	7.50	6.00	0.90	9.50	9.50	3.60	2.40	17.00	8.90
Nd	35.50	28.50	30.00	28.50	4.50	37.00	38.00	16.50	11.00	64.00	32.00
Sm	6.00	5.50	5.50	7.50	1.20	8.00	7.50	4.20	3.00	11.00	5.60
Eu	1.80	1.65	1.65	1.75	0.42	1.80	1.75	1.40	1.25	1.75	1.10
Gd	5.50	6.00	5.50	7.50	1.40	8.50	7.50	5.00	3.60	8.50	4.70
Tb	0.86	1.05	0.98	1.40	0.21	1.50	1.40	0.86	0.61	1.15	0.77
Dy	5.50	6.50	6.50	9.00	1.40	10.50	9.00	6.50	4.10	5.50	4.40
Ho	1.00	1.35	1.50	1.60	0.29	2.20	1.95	1.45	0.90	0.86	1.00
Er	2.80	3.90	4.50	4.20	0.75	7.00	6.00	4.60	2.60	1.75	2.90
Tm	0.40	0.65	0.75	0.60	0.10	1.05	0.90	0.70	0.40	0.20	0.40
Yb	2.75	3.85	4.25	3.25	3.8	5.75	4.95	3.95	2.55	1.25	2.80
Lu	0.42	0.62	0.76	0.47	0.13	1.15	0.91	0.68	0.38	0.16	0.40
La/Th	5.20	3.35	3.45	10.00	2.86	2.88	2.84	10.00	15.74	2.80	2.60
Th/Ni	0.63	0.41	1.38	0.01	0.01	0.73	0.44	0.02	0.01	0.56	0.27
(La/Yb)N	12.78	7.64	6.04	3.33	0.54	5.41	6.01	2.57	2.25	45.41	9.17
(La/Sm)N	5.46	4.98	4.35	1.34	1.57	3.62	3.69	2.25	1.78	4.81	4.27
(Eu/Eu*)N	0.96	0.88	0.92	0.71	0.99	0.67	0.71	0.93	1.16	0.55	0.66

Table 2 - Sm-Nd isotopic analyses

Sample	Group	Max. Dep Age (Ma)	Nd (ppm)	Sm (ppm)	$^{147}\text{Sm}/^{144}\text{Nd}$	$^{143}\text{Nd}/^{144}\text{Nd}$	$\epsilon_{\text{Nd}}(0)$	$\epsilon_{\text{Nd}}(1400)$	$\epsilon_{\text{Nd}}(\text{Max. Dep})$	T_{DM}
594*	Pna1	1470	48.1	8.9	0.1114	0.511902	-14.4	0.9	1.7	1840
596*	Pna1	1400	28.8	6.0	0.1261	0.511729	-17.7	-5.1	-5.1	2439
563*	Pna2	1420	28.3	5.6	0.1196	0.511910	-14.2	-0.4	-0.2	1983
564	Pna2	-	29.1	7.5	0.1565	0.512236	-7.9	-0.7	-	2390
567	Pna2	-	4.3	1.2	0.1613	0.512253	-7.5	-1.2	-	2559
695	Pna2	-	42.2	8.8	0.1263	0.511927	-13.9	-1.3	-	2107
767	Pna2	-	37.1	7.5	0.1227	0.511864	-15.1	-1.9	-	2127
476*	Pna3	1530	53.5	9.6	0.1084	0.511590	-20.5	-4.7	-3.2	2233
525*	Pna3	1400	68.0	11.0	0.0981	0.511537	-21.5	-3.8	-3.8	2103
529*	Pna3	1400	62.2	10.9	0.1057	0.511557	-21.1	-4.8	-4.8	2223

* Samples analysed for detrital zircons

Measured $^{143}\text{Nd}/^{144}\text{Nd}$ ratios were normalized to $^{146}\text{Nd}/^{144}\text{Nd} = 0.721903$. Nd blanks carried out during the course of the analyses range from 51 to 73 pg. The $^{143}\text{Nd}/^{144}\text{Nd}$ ratio of the in-house standard (Johnson Matthey) at the Adelaide University laboratory during the course of the analysis was 0.511597 ± 0.000007 (1 sd, no. of analyses = 3). Running average for La Jolla over the study is 0.511837 ± 0.000004 (1 st.dev., no. of analyses = 6). Present-day depleted mantle values used were $^{143}\text{Nd}/^{144}\text{Nd} = 0.513151$ and $^{147}\text{Sm}/^{144}\text{Nd} = 0.2145$ (Goldstein et al., 1984).

Table 3 - SHRIMP

Spot name	U (ppm)	Th (ppm)	Th/U	f ₂₀₆ Pb (%)	206Pb/238U (204 corr.)	1 σ error	207Pb/206Pb (204 corr.)	1 σ error	Apparent Ages (Ma)			1 σ	Conc. (%)
									206/ 238	1 σ	207/ 206		
Sample 596													
1.1	164	132	0.80	0.36	0.3022	0.0053	0.1039	0.0030	1702	26	1696	54	100
2.1	188	127	0.67	0.03	0.2350	0.0055	0.0953	0.0027	1361	29	1534	53	89
3.1	442	207	0.47	0.10	0.2774	0.0062	0.1022	0.0013	1578	31	1665	24	95
4.1	113	57	0.50	0.64	0.2522	0.0083	0.0922	0.0022	1450	43	1472	46	99
5.1	303	206	0.68	0.19	0.2909	0.0053	0.1025	0.0014	1646	26	1669	25	99
6.1	214	93	0.43	2.67	0.1785	0.0030	0.0988	0.0072	1059	17	1602	143	66
7.1	137	95	0.70	0.57	0.2625	0.0068	0.0996	0.0030	1502	35	1616	57	93
8.1	302	168	0.56	0.09	0.2516	0.0039	0.0999	0.0016	1447	20	1623	31	89
9.1	68	67	0.98	2.44	0.2707	0.0076	0.0870	0.0082	1544	39	1361	194	114
10.1	270	75	0.28	0.25	0.1947	0.0050	0.0786	0.0015	1147	27	1162	39	99
11.1	282	243	0.86	0.09	0.2697	0.0037	0.0980	0.0015	1539	19	1587	29	97
12.1	155	139	0.90	0.20	0.2754	0.0048	0.0973	0.0017	1568	24	1573	34	100
13.1	285	162	0.57	0.25	0.3009	0.0040	0.1100	0.0015	1696	20	1799	24	94
14.1	103	67	0.65	0.03	0.2913	0.0069	0.0966	0.0018	1648	34	1559	36	106
15.1	105	51	0.49	0.03	0.2788	0.0082	0.0950	0.0029	1585	42	1527	58	104
16.1	251	108	0.43	0.50	0.1875	0.0057	0.0799	0.0022	1108	31	1195	55	93
17.1	237	265	1.12	0.03	0.1952	0.0029	0.0807	0.0008	1149	15	1215	20	95
18.1	294	101	0.34	0.33	0.2354	0.0041	0.0928	0.0012	1363	21	1485	25	92
19.1	264	197	0.74	0.20	0.2896	0.0055	0.0992	0.0014	1640	28	1609	26	102
20.1	98	83	0.84	0.08	0.2762	0.0064	0.1012	0.0024	1572	32	1646	44	96
21.1	130	84	0.65	0.13	0.2425	0.0064	0.0933	0.0023	1400	33	1493	47	94
22.1	128	91	0.71	0.37	0.2135	0.0081	0.0829	0.0026	1247	43	1267	61	98
22.2	161	105	0.66	0.19	0.1901	0.0032	0.0809	0.0013	1122	29	1220	32	92
22.3	125	77	0.62	1.09	0.1983	0.0036	0.0820	0.0045	1166	32	1245	110	94
23.1	150	44	0.30	0.15	0.2002	0.0054	0.0818	0.0018	1177	22	1240	43	95
24.1	259	263	1.01	0.61	0.2691	0.0062	0.0964	0.0018	1536	17	1555	35	99
25.1	361	302	0.84	0.04	0.2756	0.0044	0.0952	0.0012	1569	21	1532	24	102
26.1	358	325	0.91	0.23	0.2478	0.0034	0.0980	0.0011	1427	19	1586	21	90
27.1	206	133	0.65	0.10	0.2320	0.0040	0.0919	0.0021	1345	19	1465	44	92
28.1	428	265	0.62	0.07	0.2504	0.0036	0.0958	0.0010	1440	39	1543	19	93
29.1	489	581	1.19	0.03	0.2651	0.0037	0.0977	0.0007	1516	35	1581	13	96
30.1	387	314	0.81	0.02	0.2702	0.0077	0.0957	0.0012	1542	30	1541	23	100

SHRIMP Spot name	U (ppm)	Th (ppm)	Th/U	f _{206 Pb} (%)	206Pb/238U (204 corr.)	1σ error	207Pb/206Pb (204 corr.)	1σ error	Apparent Ages (Ma)			1σ Conc. (%)	
									206/ 238	1σ	207/ 206		
Sample 596 contd.													
31.1	150	133	0.89	0.37	0.1922	0.0065	0.0762	0.0022	1133	21	1099	58	103
32.1	198	136	0.69	0.16	0.2294	0.0057	0.0937	0.0014	1332	23	1503	28	89
33.1	249	98	0.39	0.06	0.1855	0.0038	0.0779	0.0011	1097	27	1145	29	96
34.1	459	556	1.21	0.29	0.2583	0.0045	0.0983	0.0011	1481	38	1592	21	93
35.1	233	181	0.78	0.13	0.1923	0.0050	0.0797	0.0014	1134	23	1190	35	95
36.1	88	92	1.05	0.80	0.2686	0.0075	0.1017	0.0025	1533	26	1655	47	93
37.1	203	147	0.72	0.18	0.2523	0.0045	0.0975	0.0016	1450	14	1576	32	92
38.1	208	145	0.70	0.03	0.2821	0.0052	0.1011	0.0011	1602	30	1644	21	97
39.1	454	158	0.35	0.37	0.2145	0.0027	0.0913	0.0023	1253	29	1453	48	86
40.1	305	371	1.22	0.08	0.2431	0.0057	0.0889	0.0017	1403	30	1401	36	100
41.1	158	138	0.87	0.84	0.2243	0.0054	0.0890	0.0032	1305	18	1404	71	93
42.1	267	208	0.78	0.17	0.2690	0.0059	0.0979	0.0011	1536	14	1584	20	97
43.1	356	269	0.76	0.05	0.2498	0.0035	0.0961	0.0010	1438	21	1549	19	93
44.1	457	409	0.89	0.21	0.2346	0.0026	0.0931	0.0010	1359	14	1490	20	91
45.1	572	318	0.56	0.15	0.2496	0.0041	0.0987	0.0011	1436	25	1600	20	90
46.1	634	242	0.38	1.26	0.2231	0.0027	0.1013	0.0014	1298	25	1647	25	79
47.1	249	157	0.63	0.03	0.2769	0.0050	0.1009	0.0012	1576	24	1641	22	96
48.1	282	238	0.85	0.34	0.2105	0.0047	0.0893	0.0015	1232	50	1410	32	87
49.1	259	75	0.29	0.07	0.2476	0.0047	0.0963	0.0011	1426	32	1553	21	92
50.1	143	167	1.17	0.02	0.2942	0.0100	0.1039	0.0017	1662	14	1694	30	98
51.1	174	252	1.45	0.20	0.2686	0.0064	0.1007	0.0014	1534	17	1637	26	94
52.1	532	450	0.85	0.84	0.2351	0.0026	0.0953	0.0014	1361	20	1533	28	89
53.1	190	91	0.48	0.38	0.2376	0.0052	0.0929	0.0020	1374	27	1486	41	93
54.1	160	85	0.53	0.15	0.2794	0.0097	0.0985	0.0030	1588	49	1596	57	100
55.1	128	87	0.68	0.13	0.2828	0.0078	0.0976	0.0016	1606	39	1578	31	102

SHRIMP Spot name	U (ppm)	Th (ppm)	Th/U	1206 Pb (%)	206Pb/238U (204 corr.)	1 σ error	207Pb/206Pb (204 corr.)	1 σ error	Apparent Ages (Ma)				1 σ	Conc. (%)
									206/ 238	1 σ	207/ 206	206/ 238		
Sample 563														
c1.1	104	44	0.44	0.40	0.3122	0.0051	0.1076	0.0026	1751	24	1759	45	100	
c2.1	682	336	0.51	0.18	0.3038	0.0031	0.1065	0.0006	1707	13	1740	11	98	
c3.1	121	84	0.72	2.36	0.2229	0.0035	0.0899	0.0035	1289	17	1424	75	91	
c3.2	133	78	0.61	2.46	0.2102	0.0026	0.0844	0.0029	1226	13	1302	68	94	
c4.1	527	128	0.25	0.34	0.2078	0.0022	0.0832	0.0005	1214	10	1274	12	96	
c5.1	164	98	0.62	1.34	0.3177	0.0043	0.1172	0.0020	1761	19	1914	30	93	
c6.1	711	804	1.17	0.59	0.3003	0.0031	0.1073	0.0006	1686	13	1754	10	97	
c7.1	307	281	0.95	0.93	0.2844	0.0033	0.1066	0.0012	1600	15	1742	20	93	
c8.1	666	339	0.53	0.50	0.2578	0.0036	0.0958	0.0008	1473	17	1543	16	96	
c9.1	209	31	0.15	0.39	0.2825	0.0036	0.1008	0.0010	1600	16	1640	19	98	
c10.1	742	111	0.15	0.64	0.2891	0.0030	0.1056	0.0008	1628	13	1725	13	95	
c11.1	130	53	0.42	0.91	0.2229	0.0032	0.0909	0.0016	1287	16	1444	33	90	
c12.1	171	104	0.63	0.42	0.3224	0.0043	0.1123	0.0011	1797	19	1837	18	98	
c14.1	219	102	0.48	0.39	0.2933	0.0036	0.1054	0.0008	1652	16	1721	15	96	
c15.1	282	68	0.25	0.81	0.2740	0.0034	0.1034	0.0008	1549	16	1686	14	93	
c16.1	446	209	0.49	0.37	0.2583	0.0029	0.0948	0.0012	1477	13	1524	23	97	
c17.1	294	49	0.17	0.22	0.3198	0.0037	0.1111	0.0016	1785	16	1817	27	98	
c18.1	139	85	0.63	0.47	0.3064	0.0042	0.1048	0.0022	1724	19	1711	38	101	
c19.1	562	134	0.25	0.72	0.2763	0.0030	0.1011	0.0006	1566	13	1644	12	96	
c20.1	407	343	0.87	0.62	0.2581	0.0029	0.0951	0.0011	1476	13	1529	22	97	
c21.1	359	175	0.50	0.11	0.3510	0.0039	0.1200	0.0006	1937	16	1956	9	99	
c22.1	322	145	0.47	-0.86	0.3325	0.0040	0.1063	0.0008	1865	17	1736	14	107	
c23.1	219	88	0.41	3.86	0.3697	0.0047	0.1524	0.0029	1964	20	2373	32	85	
c24.1	199	60	0.31	0.05	0.1954	0.0025	0.0788	0.0008	1150	12	1166	21	99	
c25.1	90	99	1.14	0.57	0.2784	0.0043	0.1008	0.0021	1578	20	1639	39	97	
c26.1	406	61	0.15	0.39	0.2077	0.0022	0.0824	0.0006	1214	10	1256	15	97	
c27.1	137	77	0.58	0.14	0.3120	0.0042	0.1078	0.0010	1749	19	1762	17	99	
c28.1	362	164	0.47	0.65	0.2716	0.0029	0.1004	0.0007	1541	13	1632	13	95	
c29.1	1240	493	0.41	0.86	0.2717	0.0026	0.1013	0.0004	1541	11	1647	8	94	
c30.1	83	88	1.10	0.60	0.2782	0.0041	0.0994	0.0021	1580	19	1613	40	98	

SHRIMP Spot name	U (ppm)	Th (ppm)	Th/U	f ₂₀₆ Pb (%)	206Pb/238U (204 corr.)	1 σ error	207Pb/206Pb (204 corr.)	1 σ error	Apparent Ages (Ma)			1 σ	Conc. (%)
									206/ 238	1 σ	207/ 206		
Sample 563 contd.													
c31.1	469	193	0.42	-0.48	0.3501	0.0037678	0.1145	0.0021	1944	15	1871	34	103
c32.1	351	46	0.14	-0.15	0.3151	0.00341264	0.1060	0.0009	1769	14	1732	15	102
c33.1	349	70	0.21	-0.59	0.3165	0.00635372	0.1034	0.0006	1783	30	1687	10	105
c34.1	869	93	0.11	-0.09	0.3096	0.00304757	0.1059	0.0006	1740	12	1730	11	101
c35.1	175	78	0.46	0.05	0.2040	0.00257104	0.0785	0.0014	1199	12	1160	35	103
c36.1	792	68	0.09	-0.08	0.2058	0.00236934	0.0802	0.0010	1207	9	1201	7	100
c37.1	178	82	0.48	-0.83	0.3390	0.00436394	0.1072	0.0021	1898	19	1752	36	107
c38.1	241	227	0.97	-2.73	0.5612	0.0062753	0.1893	0.0007	2935	23	2736	6	105
c39.1	242	93	0.40	0.63	0.2761	0.00312622	0.1014	0.0009	1564	14	1649	16	95
c40.1	464	88	0.20	0.27	0.3068	0.00327979	0.1077	0.0012	1721	14	1762	20	98
c41.1	151	93	0.64	1.86	0.2405	0.00307882	0.0976	0.0018	1375	14	1579	35	88
c42.1	1014	316	0.32	1.03	0.2609	0.00258465	0.1014	0.0010	1481	11	1649	18	91
c43.1	1215	1209	1.03	0.56	0.2615	0.00256674	0.0978	0.0005	1490	11	1583	10	95
c44.1	287	146	0.52	0.72	0.3343	0.00384787	0.1189	0.0012	1848	16	1940	18	96
c46.1	772	397	0.53	0.90	0.2581	0.00258663	0.0977	0.0005	1472	11	1581	10	94
c47.1	328	207	0.65	0.31	0.2168	0.00237013	0.0841	0.0012	1263	11	1295	28	98
c48.1	197	101	0.53	0.25	0.2884	0.00337981	0.1026	0.0007	1630	15	1672	13	98
c49.1	635	301	0.49	-0.19	0.3262	0.00325145	0.1081	0.0017	1826	13	1768	28	103
c50.1	242	118	0.50	-0.76	0.3263	0.00367967	0.1049	0.0014	1833	16	1712	24	106
c51.1	254	114	0.46	0.86	0.2919	0.00327634	0.1049	0.0014	1645	14	1712	24	96
c52.1	637	174	0.28	-0.28	0.3374	0.00336428	0.1126	0.0004	1879	14	1842	7	102
c53.1	959	73	0.08	0.56	0.2941	0.00291378	0.1041	0.0009	1658	12	1698	17	98
c54.1	217	96	0.46	-0.16	0.3178	0.00680539	0.1070	0.0012	1783	32	1748	21	102
c55.1	237	114	0.50	0.02	0.3120	0.00351498	0.1071	0.0007	1750	15	1751	11	100
c56.1	364	141	0.40	0.43	0.2858	0.00301643	0.1022	0.0006	1616	13	1664	12	97
c57.1	1006	872	0.90	1.20	0.2955	0.00292258	0.1076	0.0006	1659	12	1759	10	95
c58.1	184	34	0.19	0.85	0.2544	0.00306956	0.0970	0.0015	1452	14	1568	29	93
c59.1	192	116	0.62	0.23	0.2092	0.00247698	0.0819	0.0015	1223	12	1243	36	99

Table 4 - LA-ICPMS

Spot name	Apparent Ages (Ma)												Conc. (%)														
	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	208Pb/ 232Th	±208Pb/ 232Th															
Sample 594																											
594_1	0.22253	0.0023	2.65750	0.0283	0.08662	0.0009	0.06803	0.0006	1295	1317	8	1352	20	1330	12	1330	12	1330	20	1352	8	1352	20	1330	12	1330	97
594_2	0.22218	0.0023	2.68188	0.0290	0.08755	0.0010	0.07742	0.0007	1293	1324	8	1373	21	1507	14	1507	14	1507	21	1373	8	1373	21	1507	14	1507	101
594_3	0.18025	0.0018	1.95571	0.0221	0.07870	0.0009	0.05941	0.0016	1068	1100	8	1165	22	1167	30	1167	30	1167	22	1165	8	1165	22	1167	30	1167	91
594_4	0.27171	0.0028	3.67302	0.0424	0.09805	0.0011	0.07588	0.0007	1550	1566	9	1587	22	1478	13	1478	13	1478	22	1587	9	1587	22	1478	13	1478	97
594_5	0.20408	0.0021	2.26440	0.0261	0.08048	0.0009	0.06122	0.0007	1197	1201	8	1209	23	1201	12	1201	12	1201	23	1209	8	1209	23	1201	12	1201	99
594_6	0.22194	0.0025	2.92147	0.0495	0.09548	0.0017	0.06682	0.0010	1292	1388	13	1538	32	1307	20	1307	20	1307	32	1538	13	1538	32	1307	20	1307	82
594_7	0.27025	0.0028	3.67100	0.0410	0.09852	0.0011	0.08011	0.0008	1542	1565	9	1596	21	1558	14	1558	14	1558	21	1596	9	1596	21	1558	14	1558	96
594_8	0.22249	0.0023	3.01833	0.0363	0.09840	0.0013	0.08566	0.0010	1295	1412	10	1594	24	1661	19	1661	19	1661	24	1594	10	1594	24	1661	19	1661	91
594_9	0.22965	0.0024	3.05435	0.0379	0.09647	0.0012	0.07024	0.0008	1333	1421	10	1557	23	1372	15	1372	15	1372	23	1557	10	1557	23	1372	15	1372	86
594_10	0.20684	0.0021	2.31788	0.0291	0.08128	0.0010	0.07288	0.0010	1212	1218	9	1228	25	1422	19	1422	19	1422	25	1228	9	1228	25	1422	19	1422	99
594_11	0.19430	0.0020	2.10319	0.0228	0.07851	0.0009	0.05659	0.0008	1145	1150	7	1160	21	1113	16	1113	16	1113	21	1160	7	1160	21	1113	16	1113	99
594_12	0.19399	0.0020	2.10034	0.0223	0.07853	0.0008	0.05554	0.0006	1143	1149	7	1160	21	1093	11	1093	11	1093	21	1160	7	1160	21	1093	11	1093	98
594_13	0.19406	0.0020	2.09068	0.0222	0.07814	0.0008	0.05833	0.0009	1143	1146	7	1151	21	1146	18	1146	18	1146	21	1151	7	1151	21	1146	18	1146	99
594_14	0.20557	0.0021	2.28958	0.0244	0.08079	0.0009	0.10859	0.0021	1205	1209	8	1216	21	2084	38	2084	38	2084	21	1216	8	1216	21	2084	38	2084	99
594_15	0.19285	0.0020	2.15808	0.0235	0.08117	0.0009	0.09035	0.0015	1137	1168	8	1226	21	1748	27	1748	27	1748	21	1226	8	1226	21	1748	27	1748	98
594_16	0.25844	0.0027	3.49011	0.0398	0.09795	0.0011	0.07572	0.0008	1482	1525	9	1586	21	1475	16	1475	16	1475	21	1586	9	1586	21	1475	16	1475	93
594_17	0.19344	0.0020	2.13420	0.0243	0.08002	0.0009	0.09164	0.0031	1140	1160	8	1198	23	1772	57	1772	57	1772	23	1198	8	1198	23	1772	57	1772	97
594_18	0.25499	0.0026	3.30074	0.0371	0.09389	0.0011	0.07439	0.0008	1464	1481	9	1506	21	1450	15	1450	15	1450	21	1506	9	1506	21	1450	15	1450	97
594_19	0.25718	0.0027	3.46153	0.0393	0.09763	0.0011	0.07420	0.0008	1475	1519	9	1579	21	1447	15	1447	15	1447	21	1579	9	1579	21	1447	15	1447	93
594_20	0.23677	0.0024	3.14785	0.0335	0.09643	0.0010	0.07275	0.0007	1370	1445	8	1556	20	1419	13	1419	13	1419	20	1556	8	1556	20	1419	13	1419	90
594_21	0.23968	0.0025	3.21502	0.0384	0.09729	0.0012	0.07107	0.0008	1385	1461	9	1573	23	1388	16	1388	16	1388	23	1573	9	1573	23	1388	16	1388	87
594_22	0.25589	0.0027	3.48651	0.0394	0.09883	0.0011	0.07899	0.0009	1469	1524	9	1602	21	1537	17	1537	17	1537	21	1602	9	1602	21	1537	17	1537	93
594_23	0.23584	0.0024	2.99123	0.0310	0.09200	0.0010	0.06982	0.0006	1365	1405	8	1467	19	1364	11	1364	11	1364	19	1467	8	1467	19	1364	11	1364	92
594_24	0.19162	0.0020	2.27956	0.0243	0.08629	0.0009	0.07945	0.0008	1130	1206	8	1345	20	1545	15	1545	15	1545	20	1345	8	1345	20	1545	15	1545	96
594_25	0.24307	0.0025	3.23685	0.0328	0.09659	0.0010	0.06496	0.0005	1403	1466	8	1559	19	1272	10	1272	10	1272	19	1559	8	1559	19	1272	10	1272	89
594_26	0.19456	0.0020	2.13534	0.0225	0.07961	0.0008	0.05709	0.0005	1146	1160	7	1187	21	1122	10	1122	10	1122	21	1187	7	1187	21	1122	10	1122	96
594_27	0.19596	0.0020	2.12212	0.0223	0.07855	0.0008	0.05508	0.0005	1154	1156	7	1161	20	1084	10	1084	10	1084	20	1161	7	1161	20	1084	10	1084	99
594_28	0.17903	0.0019	1.94399	0.0222	0.07876	0.0009	0.05695	0.0014	1062	1096	8	1166	23	1120	26	1120	26	1120	23	1166	8	1166	23	1120	26	1120	91
594_29	0.17748	0.0018	1.94579	0.0217	0.07952	0.0009	0.05287	0.0006	1053	1097	7	1185	22	1041	11	1041	11	1041	22	1185	7	1185	22	1041	11	1041	88
594_30	0.26448	0.0028	3.55869	0.0432	0.09759	0.0012	0.07352	0.0009	1513	1540	10	1579	23	1434	17	1434	17	1434	23	1579	10	1579	23	1434	17	1434	95

LA-ICPMS Spot name	Apparent Ages (Ma)														Conc. (%)		
	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	208Pb/ 232Th	±208Pb/ 232Th	206/ 238	±206/ 238	207/ 235	±207/ 235	207/ 206	±207/ 206		208/ 232	±208/ 232
Sample 594 contd.																	
594_31	0.17962	0.0019	1.93505	0.0212	0.07814	0.0009	0.05382	0.0006	1065	10	1093	7	1151	21	1060	11	92
594_32	0.19622	0.0020	2.13047	0.0225	0.07875	0.0008	0.06159	0.0014	1155	11	1159	7	1166	20	1208	26	99
594_33	0.26941	0.0029	3.63564	0.0443	0.09788	0.0012	0.10315	0.0011	1538	15	1557	10	1584	23	1984	20	97
594_34	0.24060	0.0027	4.94246	0.0635	0.14899	0.0020	0.19683	0.0022	1390	14	1810	11	2334	22	3632	37	55
594_35	0.19291	0.0020	2.10170	0.0231	0.07902	0.0009	0.05628	0.0007	1137	11	1149	8	1173	21	1107	14	97
594_36	0.17465	0.0019	1.90820	0.0239	0.07924	0.0010	0.05568	0.0011	1038	10	1084	8	1178	25	1095	20	89
594_37	0.19687	0.0021	2.13534	0.0229	0.07867	0.0008	0.05810	0.0006	1159	11	1160	7	1164	21	1142	11	100
594_38	0.19496	0.0020	2.11035	0.0227	0.07851	0.0008	0.05438	0.0006	1148	11	1152	7	1160	21	1070	11	99
594_39	0.19578	0.0020	2.13077	0.0230	0.07894	0.0008	0.05736	0.0018	1153	11	1159	7	1171	21	1127	34	98

LA-ICPMS Spot name	Apparent Ages (Ma)														Conc. (%)			
	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	206Pb/ 232Th	±206Pb/ 232Th	208Pb/ 232Th	±208Pb/ 232Th	206/ 238	±206/ 238	207/ 235	±207/ 235		207/ 206	±207/ 206	208/ 232
Sample 525																		
525_1	0.20660	0.0020	2.26663	0.0217	0.07958	0.0008	0.06122	0.0006	0.0006	1211	11	1202	7	1187	20	1201	11	102
525_2	0.27832	0.0027	3.98643	0.0403	0.10390	0.0011	0.08381	0.0006	0.0006	1583	14	1631	8	1695	19	1627	10	95
525_3	0.40717	0.0040	8.30181	0.0972	0.14791	0.0019	0.40447	0.0071	0.0071	2202	19	2265	11	2322	22	6865	102	94
525_4	0.20632	0.0022	2.26821	0.0244	0.07975	0.0008	0.06549	0.0008	0.0008	1209	12	1203	8	1191	20	1282	15	102
525_5	0.21410	0.0023	2.38780	0.0255	0.08090	0.0008	0.07151	0.0007	0.0007	1251	12	1239	8	1219	20	1396	14	103
525_6	0.27452	0.0031	3.72108	0.0422	0.09832	0.0010	0.08124	0.0007	0.0007	1564	16	1576	9	1593	19	1579	12	98
525_7	0.23845	0.0023	3.05478	0.0297	0.09293	0.0010	0.07697	0.0006	0.0006	1379	12	1421	7	1486	20	1499	11	95
525_8	0.19877	0.0020	2.17076	0.0219	0.07922	0.0008	0.05964	0.0004	0.0004	1169	11	1172	7	1178	20	1171	8	99
525_9	0.21078	0.0019	2.34535	0.0220	0.08071	0.0008	0.06418	0.0010	0.0010	1233	10	1226	7	1215	20	1257	20	102
525_10	0.19726	0.0023	2.20112	0.0270	0.08094	0.0009	0.05878	0.0005	0.0005	1161	12	1181	9	1220	22	1155	10	95
525_11	0.21545	0.0021	2.38418	0.0228	0.08027	0.0008	0.06763	0.0007	0.0007	1258	11	1238	7	1204	20	1323	13	105
525_12	0.27441	0.0027	3.72799	0.0369	0.09855	0.0010	0.10472	0.0012	0.0012	1563	14	1577	8	1597	18	2013	23	98
525_13	0.20626	0.0021	2.28751	0.0227	0.08045	0.0008	0.06144	0.0005	0.0005	1209	11	1208	7	1208	20	1205	9	100
525_14	0.27152	0.0029	3.66482	0.0393	0.09791	0.0010	0.07262	0.0005	0.0005	1549	15	1564	9	1585	19	1417	10	97
525_15	0.28086	0.0025	3.82845	0.0349	0.09890	0.0010	0.08657	0.0007	0.0007	1596	13	1599	7	1603	19	1678	12	99
525_16	0.31364	0.0031	4.70881	0.0470	0.10891	0.0011	0.08985	0.0005	0.0005	1759	15	1769	8	1781	18	1739	10	99
525_17	0.27095	0.0025	3.70052	0.0376	0.09913	0.0011	0.07141	0.0007	0.0007	1546	13	1572	8	1608	21	1394	14	96
525_18	0.20418	0.0021	2.26057	0.0227	0.08031	0.0008	0.07159	0.0006	0.0006	1198	11	1200	7	1205	20	1398	12	99
525_19	0.21436	0.0022	2.36197	0.0241	0.07993	0.0008	0.06933	0.0008	0.0008	1252	12	1231	7	1195	20	1355	14	105
525_20	0.20853	0.0019	2.29481	0.0212	0.07983	0.0008	0.06770	0.0013	0.0013	1221	10	1211	7	1193	20	1324	24	103
525_21	0.20193	0.0020	2.19949	0.0220	0.07901	0.0008	0.06146	0.0005	0.0005	1186	11	1181	7	1172	20	1206	10	101
525_22	0.20077	0.0019	2.21728	0.0214	0.08011	0.0008	0.07310	0.0007	0.0007	1179	10	1187	7	1200	20	1426	13	98
525_23	0.21088	0.0022	2.33569	0.0239	0.08035	0.0008	0.08195	0.0010	0.0010	1234	11	1223	7	1206	20	1592	18	103
525_24	0.20684	0.0020	2.29141	0.0226	0.08036	0.0008	0.07806	0.0006	0.0006	1212	11	1210	7	1206	20	1519	11	101
525_25	0.30500	0.0027	4.68616	0.0434	0.11154	0.0012	0.11572	0.0010	0.0010	1716	13	1765	8	1825	19	2213	17	93
525_26	0.20031	0.0023	2.32262	0.0285	0.08419	0.0010	0.08717	0.0012	0.0012	1177	12	1219	9	1297	22	1689	21	99
525_27	0.20089	0.0018	2.31506	0.0220	0.08360	0.0009	0.06586	0.0006	0.0006	1180	10	1217	7	1283	21	1289	11	96
525_28	0.19560	0.0021	2.14640	0.0242	0.07962	0.0009	0.06572	0.0008	0.0008	1152	11	1164	8	1188	21	1287	15	99
525_29	0.29008	0.0029	4.00545	0.0404	0.10018	0.0010	0.08657	0.0005	0.0005	1642	15	1635	8	1627	18	1678	10	101
525_30	0.30240	0.0028	4.45007	0.0420	0.10675	0.0011	0.11246	0.0008	0.0008	1703	14	1722	8	1745	19	2154	15	97

LA-ICPMS Spot name	Apparent Ages (Ma)														Conc. (%)	
	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	206Pb/ 238Th	±206Pb/ 238Th	207/ 235	±207/ 235	207/ 206	±207/ 206	208/ 232	±208/ 232		
Sample 525 contd.																
525_31	0.27632	0.0026	3.71038	0.0349	0.09741	0.0010	0.08009	0.0005	1573	1574	8	1575	19	1557	9	100
525_32	0.19813	0.0019	2.16390	0.0210	0.07923	0.0008	0.06762	0.0006	1165	1170	7	1178	20	1323	11	99
525_33	0.19622	0.0019	2.14303	0.0205	0.07923	0.0008	0.06495	0.0005	1155	1163	7	1178	20	1272	9	98
525_34	0.28007	0.0025	3.78739	0.0378	0.09808	0.0011	0.12277	0.0011	1592	1590	8	1588	21	2341	21	100
525_35	0.28943	0.0030	4.12464	0.0439	0.10343	0.0011	0.08992	0.0006	1639	1659	9	1687	19	1740	12	97
525_36	0.19349	0.0018	2.14780	0.0219	0.08052	0.0009	0.06218	0.0004	1140	1164	7	1210	22	1219	8	94
525_37	0.22816	0.0022	2.79109	0.0286	0.08875	0.0010	0.09078	0.0009	1325	1353	8	1399	21	1756	17	94
525_38	0.19363	0.0018	2.09964	0.0204	0.07867	0.0008	0.06531	0.0005	1141	1149	7	1164	20	1279	10	98
525_39	0.19653	0.0018	2.21895	0.0219	0.08189	0.0009	0.06605	0.0005	1157	1187	7	1243	21	1293	10	92
525_40	0.21325	0.0019	2.32660	0.0229	0.07912	0.0009	0.06165	0.0006	1246	1220	7	1175	22	1209	12	107
525_41	0.26733	0.0024	3.80656	0.0367	0.10324	0.0011	0.10344	0.0011	1527	1594	8	1683	20	1990	20	96

LA-ICPMS Spot name	Apparent Ages (Ma)														Conc. (%)		
	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	208Pb/ 232Th	±208Pb/ 232Th	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb		208Pb/ 232Th	±208Pb/ 232Th
Sample 476																	
476_1	0.27806	0.0028	4.25935	0.0429	0.11111	0.0011	0.11776	0.0009	1582	14	1686	8	1818	18	2250	16	85
476_2	0.28448	0.0033	4.06799	0.0476	0.10371	0.0011	0.08465	0.0007	1614	16	1648	10	1692	19	1643	13	95
476_3	0.28424	0.0029	3.94418	0.0417	0.10064	0.0011	0.08320	0.0007	1613	15	1623	9	1636	19	1615	13	98
476_4	0.31586	0.0037	4.91700	0.0583	0.11290	0.0012	0.09541	0.0008	1770	18	1805	10	1847	19	1842	15	97
476_5	0.29666	0.0032	4.33089	0.0514	0.10592	0.0012	0.08881	0.0010	1675	16	1699	10	1730	21	1720	19	98
476_6	0.31220	0.0033	4.51606	0.0481	0.10493	0.0011	0.09154	0.0008	1752	16	1734	9	1713	18	1770	14	103
476_7	0.19368	0.0024	2.22177	0.0308	0.08324	0.0011	0.11600	0.0030	1141	13	1188	10	1275	24	2218	54	96
476_8	0.28286	0.0033	4.01506	0.0475	0.10294	0.0011	0.08083	0.0007	1606	17	1637	10	1678	19	1571	13	95
476_9	0.31700	0.0036	4.44546	0.0514	0.10170	0.0011	0.09808	0.0008	1775	18	1721	10	1655	19	1891	14	108
476_10	0.27974	0.0033	4.08122	0.0506	0.10580	0.0012	0.08906	0.0012	1590	17	1651	10	1728	20	1724	22	92
476_11	0.30624	0.0036	4.51966	0.0557	0.10708	0.0012	0.08382	0.0008	1722	18	1735	10	1750	21	1627	15	98
476_12	0.29747	0.0033	4.21664	0.0487	0.10283	0.0012	0.08636	0.0008	1679	16	1677	9	1676	20	1674	15	100
476_13	0.31040	0.0036	4.78617	0.0558	0.11189	0.0011	0.08155	0.0006	1743	18	1783	10	1830	18	1585	12	95
476_14	0.31319	0.0037	4.55802	0.0555	0.10562	0.0012	0.08231	0.0008	1756	18	1742	10	1725	20	1599	15	102
476_15	0.48143	0.0057	11.07776	0.1301	0.16699	0.0017	0.12616	0.0011	2534	25	2530	11	2528	17	2402	19	100
476_16	0.26986	0.0032	3.75941	0.0447	0.10109	0.0010	0.07355	0.0006	1540	16	1584	10	1644	19	1435	11	93
476_17	0.23480	0.0029	3.23114	0.0481	0.09990	0.0014	0.09371	0.0015	1360	15	1465	12	1622	26	1811	27	95
476_18	0.27840	0.0028	3.99176	0.0429	0.10400	0.0012	0.09135	0.0012	1583	14	1633	9	1697	21	1767	22	95
476_19	0.32180	0.0036	4.81785	0.0532	0.10861	0.0011	0.08864	0.0006	1799	18	1788	9	1776	18	1717	11	101
476_20	0.30818	0.0037	4.61243	0.0571	0.10862	0.0012	0.08572	0.0008	1732	18	1752	10	1776	20	1662	15	97
476_21	0.31601	0.0036	4.72920	0.0531	0.10854	0.0011	0.08306	0.0006	1770	18	1772	9	1775	18	1613	10	100
476_22	0.31049	0.0036	4.61077	0.0539	0.10772	0.0011	0.08416	0.0006	1743	18	1751	10	1761	19	1633	12	99
476_23	0.29296	0.0035	4.36084	0.0522	0.10801	0.0011	0.07134	0.0006	1656	17	1705	10	1766	19	1393	11	93
476_24	0.28906	0.0033	4.11868	0.0476	0.10335	0.0011	0.08327	0.0007	1637	17	1658	9	1685	19	1617	12	97
476_25	0.26950	0.0027	3.94641	0.0399	0.10622	0.0011	0.08217	0.0007	1538	13	1623	8	1736	19	1596	14	88
476_26	0.28521	0.0033	3.97239	0.0472	0.10103	0.0011	0.07729	0.0006	1618	17	1629	10	1643	19	1505	11	98
476_27	0.21614	0.0026	2.50546	0.0302	0.08410	0.0009	0.10274	0.0015	1261	14	1274	9	1295	20	1977	28	97
476_28	0.29402	0.0032	4.31118	0.0480	0.10638	0.0012	0.09520	0.0008	1662	16	1696	9	1738	20	1838	15	101
476_29	0.17763	0.0021	2.62913	0.0342	0.10733	0.0013	0.06882	0.0008	1054	12	1309	10	1755	22	1345	15	65
476_30	0.30095	0.0034	4.28302	0.0487	0.10324	0.0011	0.08512	0.0007	1696	17	1690	9	1683	19	1651	13	101

LA-ICPMS Spot name	Apparent Ages (Ma)												Conc. (%)				
	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	208Pb/ 232Th	±208Pb/ 232Th	206/ 238	±206/ 238	207/ 235	±207/ 235		207/ 206	±207/ 206	208/ 232	±208/ 232
Sample 476 contd.																	
476_31	0.26244	0.0029	3.44025	0.0377	0.09510	0.0010	0.10106	0.0011	1502	15	1514	9	1530	19	1946	20	98
476_32	0.26309	0.0031	3.44446	0.0401	0.09500	0.0010	0.07160	0.0007	1506	16	1515	9	1528	19	1398	13	98
476_33	0.30465	0.0037	4.45516	0.0534	0.10610	0.0011	0.08213	0.0007	1714	18	1723	10	1734	19	1595	13	99
476_34	0.29958	0.0035	4.47021	0.0524	0.10824	0.0012	0.08105	0.0007	1689	17	1726	10	1770	19	1575	13	95
476_35	0.20192	0.0027	2.22572	0.0349	0.07997	0.0011	0.08438	0.0027	1186	15	1189	11	1196	28	1638	50	99
476_36	0.20449	0.0024	2.28505	0.0270	0.08107	0.0009	0.07886	0.0014	1199	13	1208	8	1223	21	1534	26	98

LA-ICPMS Spot name	Apparent Ages (Ma)														Conc. (%)		
	206Pb/ 238U		±206Pb/ 238U		207Pb/ 235U		±207Pb/ 235U		207i/ 206		±207i/ 206		208/ 232			±208/ 232	
Sample 529																	
529_1	0.20523	0.0023	2.23010	0.0246	0.07882	0.0008	0.05860	0.0005	1203	12	1191	8	1168	20	1151	9	103
529_2	0.20944	0.0023	2.28316	0.0251	0.07907	0.0008	0.05655	0.0005	1226	12	1207	8	1174	19	1112	9	105
529_3	0.28037	0.0033	4.00924	0.0463	0.10371	0.0010	0.07630	0.0005	1593	17	1636	9	1692	18	1486	10	93
529_4	0.20434	0.0024	2.27985	0.0273	0.08091	0.0009	0.10345	0.0025	1199	13	1206	8	1219	20	1990	45	98
529_5	0.20017	0.0022	2.18771	0.0238	0.07928	0.0008	0.05971	0.0005	1176	12	1177	8	1179	20	1172	9	100
529_6	0.20471	0.0022	2.24254	0.0250	0.07946	0.0008	0.05853	0.0023	1201	12	1195	8	1184	21	1150	44	102
529_7	0.31049	0.0035	4.49108	0.0508	0.10490	0.0011	0.08650	0.0006	1743	17	1729	9	1713	18	1677	11	102
529_8	0.21031	0.0023	2.30295	0.0247	0.07942	0.0008	0.06833	0.0010	1231	12	1213	8	1183	20	1336	20	104
529_9	0.19941	0.0021	2.27381	0.0242	0.08272	0.0008	0.10262	0.0012	1172	11	1204	7	1263	20	1975	22	96
529_10	0.28961	0.0035	4.16435	0.0526	0.10429	0.0012	0.07664	0.0008	1640	17	1667	10	1702	21	1493	15	96
529_11	0.27231	0.0033	3.74965	0.0477	0.09988	0.0011	0.07229	0.0007	1553	17	1582	10	1622	21	1411	12	95
529_12	0.21505	0.0024	2.35585	0.0255	0.07946	0.0008	0.06171	0.0005	1256	13	1229	8	1184	19	1210	9	107
529_13	0.28090	0.0034	3.69993	0.0482	0.09556	0.0011	0.06994	0.0007	1596	17	1571	10	1539	22	1366	14	104
529_14	0.21266	0.0025	2.33318	0.0267	0.07958	0.0008	0.06704	0.0014	1243	13	1222	8	1187	20	1311	27	105
529_15	0.22118	0.0022	2.39973	0.0238	0.07869	0.0008	0.06738	0.0007	1288	12	1243	7	1164	20	1318	13	112
529_16	0.20078	0.0024	2.18724	0.0265	0.07902	0.0008	0.05460	0.0006	1180	13	1177	8	1173	20	1074	11	101
529_17	0.20775	0.0025	2.27617	0.0275	0.07949	0.0008	0.05535	0.0009	1217	13	1205	9	1184	20	1089	17	103
529_18	0.20039	0.0024	2.19441	0.0271	0.07945	0.0009	0.05302	0.0007	1177	13	1179	9	1183	21	1044	13	99
529_19	0.20869	0.0025	2.28289	0.0268	0.07935	0.0008	0.06355	0.0017	1222	13	1207	8	1181	20	1245	32	104
529_20	0.20846	0.0023	2.27965	0.0247	0.07932	0.0008	0.06152	0.0006	1221	12	1206	8	1180	20	1207	10	104
529_21	0.19897	0.0022	2.19816	0.0246	0.08013	0.0008	0.07187	0.0009	1170	12	1181	8	1200	20	1403	18	97
529_22	0.19701	0.0022	2.16258	0.0239	0.07961	0.0008	0.05747	0.0005	1159	12	1169	8	1187	20	1129	10	97
529_23	0.20003	0.0023	2.18965	0.0246	0.07940	0.0008	0.05842	0.0006	1176	12	1178	8	1182	20	1148	12	99
529_24	0.24591	0.0029	3.00281	0.0350	0.08856	0.0009	0.06467	0.0018	1417	15	1408	9	1395	19	1267	34	102
529_25	0.21421	0.0025	2.36366	0.0268	0.08003	0.0008	0.06271	0.0006	1251	13	1232	8	1198	19	1229	11	105
529_26	0.20332	0.0025	2.20989	0.0266	0.07884	0.0008	0.05821	0.0008	1193	13	1184	8	1168	20	1144	15	102
529_27	0.19937	0.0022	2.21880	0.0247	0.08072	0.0008	0.07850	0.0012	1172	12	1187	8	1215	20	1528	22	97
529_28	0.20841	0.0022	2.37603	0.0255	0.08269	0.0009	0.05749	0.0008	1220	12	1235	8	1262	20	1130	15	96
529_29	0.29065	0.0030	4.11993	0.0443	0.10284	0.0011	0.09184	0.0008	1645	15	1658	9	1676	20	1776	14	98
529_30	0.20655	0.0023	2.32019	0.0267	0.08147	0.0009	0.07372	0.0009	1210	12	1219	8	1233	20	1438	18	98

LA-ICPMS standard data		Apparent Ages (Ma)															
		Sample	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	208Pb/ 232Th	±208Pb/ 232Th	206Pb/ 238U	±206Pb/ 238U	207Pb/ 206Pb	±207Pb/ 206Pb	208Pb/ 232Th	±208Pb/ 232Th	
GJ-1	594	0.09625	0.0010	0.79488	0.0090	0.05989	0.0007	0.02989	0.0006	592	6	594	5	600	24	595	11
GJ-2	594	0.09740	0.0010	0.80539	0.0086	0.05998	0.0007	0.02935	0.0006	599	6	600	5	603	23	585	12
GJ-3	594	0.09698	0.0010	0.80596	0.0087	0.06028	0.0007	0.03125	0.0006	597	6	600	5	614	23	622	12
GJ-4	594	0.09760	0.0010	0.81200	0.0088	0.06034	0.0007	0.03060	0.0006	600	6	604	5	616	23	609	12
GJ-5	594	0.09787	0.0010	0.81027	0.0088	0.06005	0.0007	0.03093	0.0006	602	6	603	5	605	23	616	13
GJ-6	594	0.09759	0.0010	0.80898	0.0088	0.06013	0.0007	0.03041	0.0006	600	6	602	5	608	23	606	12
GJ-7	594	0.09734	0.0010	0.80672	0.0088	0.06011	0.0007	0.03094	0.0006	599	6	601	5	608	23	616	13
GJ-8	594	0.09795	0.0010	0.81446	0.0088	0.06031	0.0007	0.02985	0.0006	602	6	605	5	615	23	594	12
GJ-9	594	0.09777	0.0010	0.81140	0.0089	0.06019	0.0007	0.03208	0.0007	601	6	603	5	611	23	638	13
GJ-10	594	0.09744	0.0010	0.80616	0.0088	0.06001	0.0007	0.03095	0.0006	599	6	600	5	604	23	616	12
GJ-11	594	0.09689	0.0010	0.80291	0.0089	0.06010	0.0007	0.03085	0.0006	596	6	599	5	607	23	614	13
GJ-12	594	0.09737	0.0010	0.80739	0.0091	0.06014	0.0007	0.03113	0.0006	599	6	601	5	609	24	620	12
GJ-13	594	0.09751	0.0010	0.81095	0.0089	0.06032	0.0007	0.03069	0.0006	600	6	603	5	615	23	611	12
GJ-14	594	0.09715	0.0010	0.80298	0.0088	0.05995	0.0006	0.03106	0.0006	598	6	599	5	602	23	618	12
GJ-15	594	0.09874	0.0010	0.82050	0.0091	0.06027	0.0007	0.02994	0.0006	607	6	608	5	613	23	596	12
GJ-16	594	0.09807	0.0010	0.81415	0.0092	0.06021	0.0007	0.03195	0.0006	603	6	605	5	611	24	636	12
GJ-17	594	0.09878	0.0010	0.82106	0.0093	0.06029	0.0007	0.03062	0.0006	607	6	609	5	614	24	610	12
GJ-18	594	0.09863	0.0010	0.81965	0.0093	0.06027	0.0007	0.02994	0.0006	606	6	608	5	613	24	596	12
GJ-19	594	0.09691	0.0010	0.80174	0.0091	0.06001	0.0007	0.02991	0.0006	596	6	598	5	604	24	596	12
GJ-20	594	0.09758	0.0010	0.80956	0.0093	0.06017	0.0007	0.03244	0.0007	600	6	602	5	610	25	645	14
GJ-21	594	0.09808	0.0010	0.81449	0.0087	0.06024	0.0007	0.03142	0.0006	603	6	605	5	612	23	625	12
GJ-22	594	0.09780	0.0010	0.80817	0.0087	0.05994	0.0006	0.03118	0.0006	602	6	601	5	601	23	621	12
GJ-1	525	0.09793	0.0010	0.81445	0.0086	0.06033	0.0007	0.03031	0.0006	602	6	605	5	615	23	603	12
GJ-2	525	0.09792	0.0010	0.81103	0.0085	0.06008	0.0007	0.03154	0.0006	602	6	603	5	606	23	628	12
GJ-3	525	0.09876	0.0010	0.81632	0.0086	0.05996	0.0006	0.03047	0.0006	607	6	606	5	602	23	607	12
GJ-4	525	0.09674	0.0010	0.79848	0.0084	0.05987	0.0006	0.03180	0.0006	595	6	596	5	599	23	633	12
GJ-5	525	0.09724	0.0010	0.80906	0.0085	0.06035	0.0007	0.03108	0.0006	598	6	602	5	616	23	619	12
GJ-6	525	0.09666	0.0010	0.80255	0.0084	0.06023	0.0007	0.03084	0.0006	595	6	598	5	612	23	614	12
GJ-7	525	0.09834	0.0010	0.81487	0.0086	0.06011	0.0006	0.03071	0.0006	605	6	605	5	608	23	611	12
GJ-8	525	0.09637	0.0010	0.80676	0.0085	0.06073	0.0007	0.02909	0.0006	593	6	601	5	630	23	580	12

LA-ICPMS standard data		Apparent Ages (Ma)															
Spot name	Sample	206Pb/ 238U	±206Pb/ 238U	207Pb/ 235U	±207Pb/ 235U	207Pb/ 206Pb	±207Pb/ 206Pb	208Pb/ 232Th	±208Pb/ 232Th	206/ 238	±206/ 238	207/ 235	±207/ 235	207/ 206	±207/ 206	208/ 232	±208/ 232
GJ-1																	
GJ-1	594	0.09625	0.0010	0.79488	0.0090	0.05989	0.0007	0.02989	0.0006	592	6	594	5	600	24	595	11
GJ-2	594	0.09740	0.0010	0.80539	0.0086	0.05998	0.0007	0.02935	0.0006	599	6	600	5	603	23	585	12
GJ-3	594	0.09698	0.0010	0.80596	0.0087	0.06028	0.0007	0.03125	0.0006	597	6	600	5	614	23	622	12
GJ-4	594	0.09760	0.0010	0.81200	0.0088	0.06034	0.0007	0.03060	0.0006	600	6	604	5	616	23	609	12
GJ-5	594	0.09787	0.0010	0.81027	0.0088	0.06005	0.0007	0.03093	0.0006	602	6	603	5	605	23	616	13
GJ-6	594	0.09759	0.0010	0.80898	0.0088	0.06013	0.0007	0.03041	0.0006	600	6	602	5	608	23	606	12
GJ-7	594	0.09734	0.0010	0.80672	0.0088	0.06011	0.0007	0.03094	0.0006	599	6	601	5	608	23	616	13
GJ-8	594	0.09795	0.0010	0.81446	0.0088	0.06031	0.0007	0.02985	0.0006	602	6	605	5	615	23	594	12
GJ-9	594	0.09777	0.0010	0.81140	0.0089	0.06019	0.0007	0.03208	0.0007	601	6	603	5	611	23	638	13
GJ-10	594	0.09744	0.0010	0.80616	0.0088	0.06001	0.0007	0.03095	0.0006	599	6	600	5	604	23	616	12
GJ-11	594	0.09689	0.0010	0.80291	0.0089	0.06010	0.0007	0.03085	0.0006	596	6	599	5	607	23	614	13
GJ-12	594	0.09737	0.0010	0.80739	0.0091	0.06014	0.0007	0.03113	0.0006	599	6	601	5	609	24	620	12
GJ-13	594	0.09751	0.0010	0.81095	0.0089	0.06032	0.0007	0.03069	0.0006	600	6	603	5	615	23	611	12
GJ-14	594	0.09715	0.0010	0.80298	0.0088	0.05995	0.0006	0.03106	0.0006	598	6	599	5	602	23	618	12
GJ-15	594	0.09874	0.0010	0.82050	0.0091	0.06027	0.0007	0.02994	0.0006	607	6	608	5	613	23	596	12
GJ-16	594	0.09807	0.0010	0.81415	0.0092	0.06021	0.0007	0.03195	0.0006	603	6	605	5	611	24	636	12
GJ-17	594	0.09878	0.0010	0.82106	0.0093	0.06029	0.0007	0.03062	0.0006	607	6	609	5	614	24	610	12
GJ-18	594	0.09863	0.0010	0.81965	0.0093	0.06027	0.0007	0.02994	0.0006	606	6	608	5	613	24	596	12
GJ-19	594	0.09691	0.0010	0.80174	0.0091	0.06001	0.0007	0.02991	0.0006	596	6	598	5	604	24	596	12
GJ-20	594	0.09758	0.0010	0.80956	0.0093	0.06017	0.0007	0.03244	0.0007	600	6	602	5	610	25	645	14
GJ-21	594	0.09808	0.0010	0.81449	0.0087	0.06024	0.0007	0.03142	0.0006	603	6	605	5	612	23	625	12
GJ-22	594	0.09780	0.0010	0.80817	0.0087	0.05994	0.0006	0.03118	0.0006	602	6	601	5	601	23	621	12
GJ-1	525	0.09793	0.0010	0.81445	0.0086	0.06033	0.0007	0.03031	0.0006	602	6	605	5	615	23	603	12
GJ-2	525	0.09792	0.0010	0.81103	0.0085	0.06008	0.0007	0.03154	0.0006	602	6	603	5	606	23	628	12
GJ-3	525	0.09876	0.0010	0.81632	0.0086	0.05996	0.0006	0.03047	0.0006	607	6	606	5	602	23	607	12
GJ-4	525	0.09674	0.0010	0.79848	0.0084	0.05987	0.0006	0.03180	0.0006	595	6	596	5	599	23	633	12
GJ-5	525	0.09724	0.0010	0.80906	0.0085	0.06035	0.0007	0.03108	0.0006	598	6	602	5	616	23	619	12
GJ-6	525	0.09666	0.0010	0.80255	0.0084	0.06023	0.0007	0.03084	0.0006	595	6	598	5	612	23	614	12
GJ-7	525	0.09834	0.0010	0.81487	0.0086	0.06011	0.0006	0.03071	0.0006	605	6	605	5	608	23	611	12
GJ-8	525	0.09637	0.0010	0.80676	0.0085	0.06073	0.0007	0.02909	0.0006	593	6	601	5	630	23	580	12

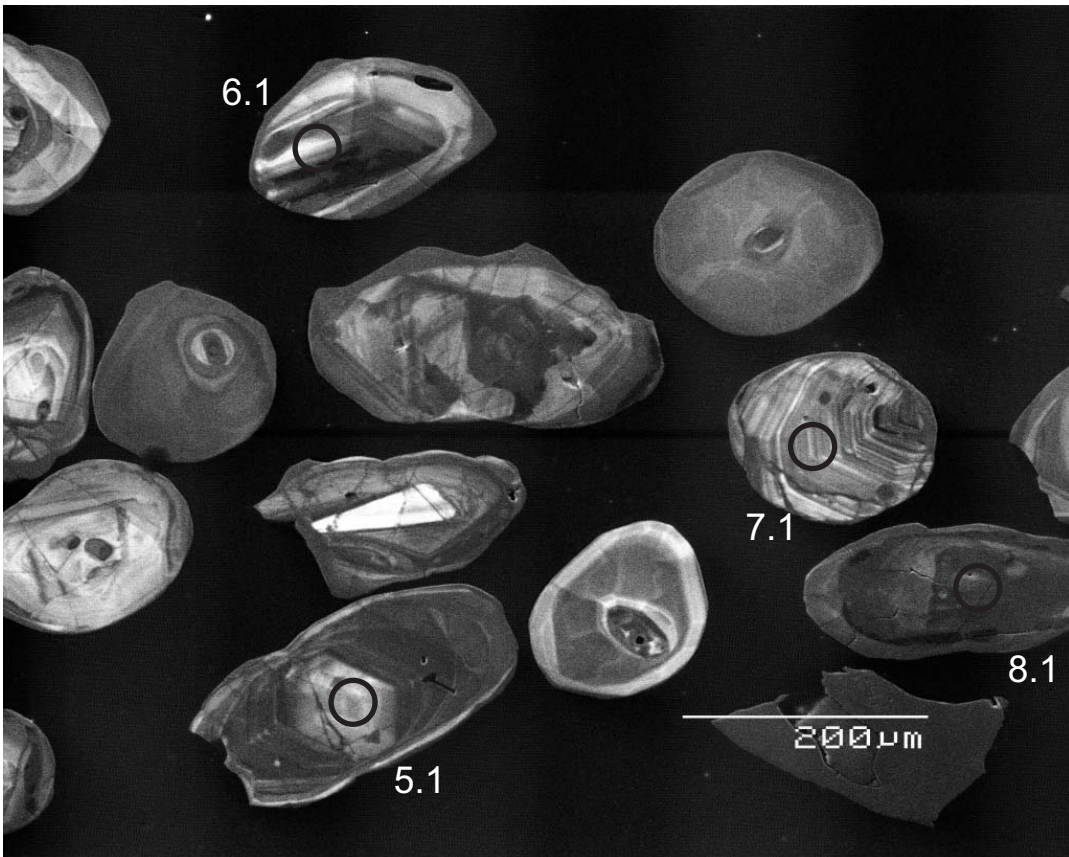
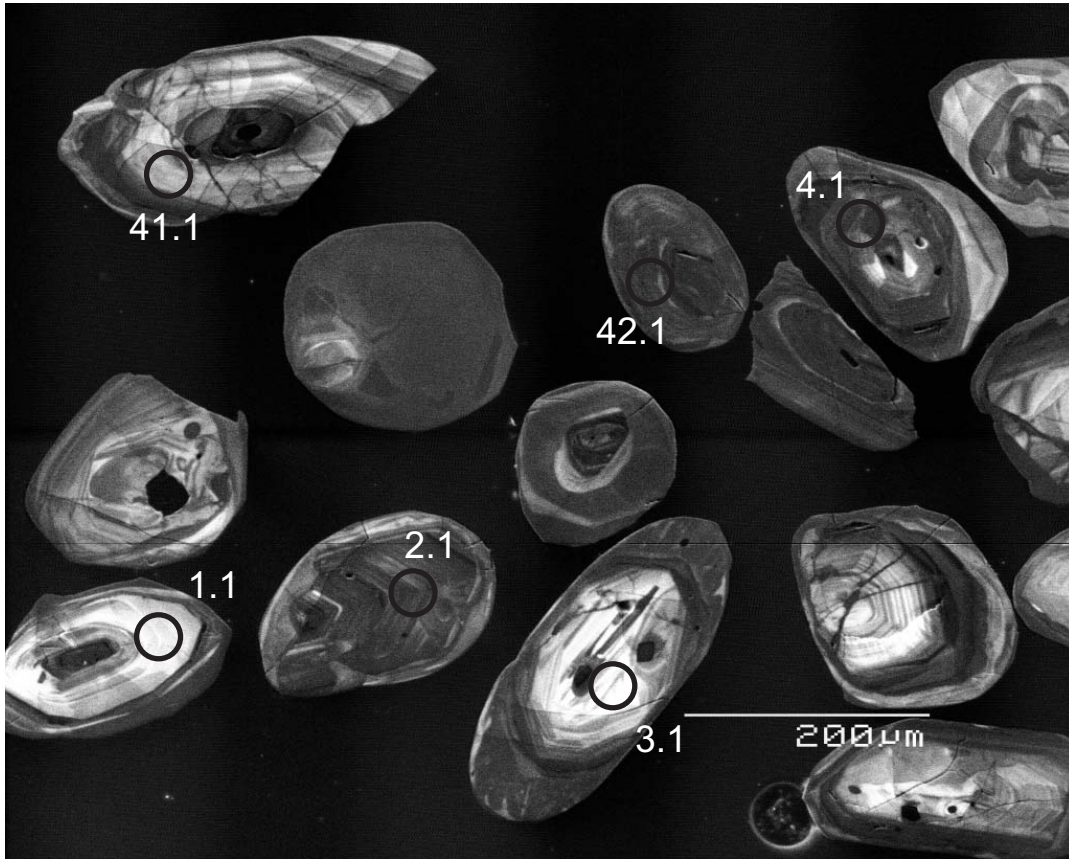
LA-ICPMS standard data		Apparent Ages (Ma)																
Spot name	Sample Block	206Pb/238U	±206Pb/238U	207Pb/235U	±207Pb/235U	207Pb/206Pb	±207Pb/206Pb	208Pb/232Th	±208Pb/232Th	206/238	±206/238	207/235	±207/235	207/206	±207/206	208/232	±208/232	
GJ-1 contd.																		
GJ-9	525	0.09814	0.0010	0.81453	0.0086	0.06021	0.0007	0.03021	0.0006	604	6	605	5	611	23	602	12	
GJ-10	525	0.09832	0.0010	0.81000	0.0086	0.05976	0.0006	0.03111	0.0006	605	6	603	5	595	23	619	11	
GJ-11	525	0.09746	0.0010	0.80876	0.0085	0.06020	0.0007	0.03090	0.0006	600	6	602	5	611	23	615	12	
GJ-12	525	0.09797	0.0010	0.81106	0.0085	0.06006	0.0006	0.03138	0.0006	603	6	603	5	606	23	625	12	
GJ-13	525	0.09548	0.0009	0.78986	0.0082	0.06001	0.0007	0.03025	0.0006	588	5	591	5	604	23	602	12	
GJ-14	525	0.09852	0.0010	0.81475	0.0085	0.05999	0.0007	0.03112	0.0006	606	6	605	5	603	23	620	12	
GJ-15	525	0.09832	0.0010	0.81730	0.0086	0.06030	0.0007	0.03118	0.0006	605	6	607	5	614	23	621	12	
GJ-16	525	0.09946	0.0010	0.82425	0.0087	0.06012	0.0007	0.02977	0.0006	611	6	610	5	608	23	593	11	
GJ-17	525	0.09819	0.0010	0.81594	0.0085	0.06028	0.0007	0.03148	0.0006	604	6	606	5	614	23	627	13	
GJ-18	525	0.09848	0.0010	0.81386	0.0085	0.05995	0.0007	0.03007	0.0006	606	6	605	5	602	23	599	12	
GJ-19	525	0.09781	0.0009	0.81283	0.0085	0.06028	0.0007	0.03101	0.0007	602	5	604	5	614	24	617	14	
GJ-20	525	0.09891	0.0010	0.81505	0.0085	0.05978	0.0007	0.03261	0.0007	608	6	605	5	595	24	649	13	
GJ-21	525	0.09508	0.0009	0.79098	0.0081	0.06035	0.0007	0.03069	0.0007	586	5	592	5	616	24	611	13	
GJ-22	525	0.09757	0.0009	0.81488	0.0084	0.06058	0.0007	0.03034	0.0007	600	5	605	5	625	24	604	13	
GJ-23	525	0.09676	0.0009	0.79767	0.0082	0.05980	0.0007	0.03046	0.0007	595	5	596	5	596	24	606	13	
GJ-24	525	0.09788	0.0009	0.81296	0.0084	0.06026	0.0007	0.03006	0.0007	602	5	604	5	613	24	599	13	
GJ-25	525	0.10047	0.0010	0.83189	0.0087	0.06008	0.0007	0.03141	0.0007	617	6	615	5	607	24	625	13	
GJ-1	476	0.09855	0.0011	0.82238	0.0095	0.06054	0.0007	0.03324	0.0008	606	6	609	5	623	24	661	16	
GJ-2	476	0.09870	0.0011	0.81667	0.0095	0.06002	0.0007	0.03160	0.0008	607	6	606	5	604	24	629	15	
GJ-3	476	0.09805	0.0010	0.81339	0.0094	0.06017	0.0007	0.03022	0.0008	603	6	604	5	610	24	602	15	
GJ-4	476	0.09725	0.0010	0.80720	0.0094	0.06021	0.0007	0.03099	0.0008	598	6	601	5	611	24	617	15	
GJ-5	476	0.09656	0.0010	0.79926	0.0094	0.06004	0.0007	0.03044	0.0008	594	6	596	5	605	25	606	16	
GJ-6	476	0.09745	0.0010	0.81180	0.0095	0.06042	0.0007	0.03033	0.0008	599	6	604	5	619	24	604	15	
GJ-7	476	0.09679	0.0010	0.79788	0.0094	0.05978	0.0007	0.02927	0.0008	596	6	596	5	595	25	583	15	
GJ-8	476	0.09805	0.0011	0.81557	0.0096	0.06032	0.0007	0.03318	0.0008	603	6	606	5	615	24	660	16	
GJ-9	476	0.09859	0.0011	0.81703	0.0096	0.06010	0.0007	0.03057	0.0008	606	6	606	5	607	24	609	15	
GJ-10	476	0.09611	0.0010	0.79923	0.0091	0.06031	0.0007	0.03121	0.0007	592	6	596	5	615	24	621	14	
GJ-11	476	0.09712	0.0010	0.80119	0.0091	0.05983	0.0007	0.03018	0.0007	598	6	598	5	598	24	601	14	
GJ-12	476	0.09761	0.0011	0.81157	0.0093	0.06030	0.0007	0.03034	0.0007	600	6	603	5	615	24	604	14	
GJ-13	476	0.10049	0.0011	0.82621	0.0096	0.05963	0.0007	0.02937	0.0007	617	6	612	5	590	24	585	14	

LA-ICPMS standard data		Apparent Ages (Ma)															
Spot name	Sample	206Pb/238U	±206Pb/238U	207Pb/235U	±207Pb/235U	207Pb/206Pb	±207Pb/206Pb	208Pb/232Th	±208Pb/232Th	206/238	±206/238	207/235	±207/235	207/206	±207/206	208/232	±208/232
GJ-1 cont'd.																	
GJ-14	476	0.10049	0.0011	0.83433	0.0097	0.06023	0.0007	0.03092	0.0007	617	6	616	5	612	24	616	14
GJ-15	476	0.09912	0.0011	0.82496	0.0096	0.06037	0.0007	0.03057	0.0007	609	6	611	5	617	24	609	14
GJ-16	476	0.09926	0.0011	0.81451	0.0095	0.05952	0.0007	0.03089	0.0007	610	6	605	5	586	24	615	14
GJ-17	476	0.09660	0.0010	0.80217	0.0093	0.06023	0.0007	0.02997	0.0008	595	6	598	5	612	24	597	15
GJ-18	476	0.09765	0.0011	0.80751	0.0093	0.05998	0.0007	0.03143	0.0007	601	6	601	5	603	24	626	15
GJ-19	476	0.09737	0.0011	0.80976	0.0094	0.06031	0.0007	0.03118	0.0007	599	6	602	5	615	24	621	13
GJ-20	476	0.09692	0.0011	0.80275	0.0093	0.06007	0.0007	0.03136	0.0007	596	6	598	5	606	24	624	14
GJ-21	476	0.09809	0.0011	0.81081	0.0094	0.05995	0.0007	0.03053	0.0006	603	6	603	5	602	23	608	12
GJ-22	476	0.09893	0.0011	0.82143	0.0095	0.06023	0.0007	0.03002	0.0006	608	6	609	5	612	23	598	12
GJ-23	476	0.09667	0.0011	0.81535	0.0094	0.06117	0.0007	0.03042	0.0007	595	6	606	5	645	24	606	14
GJ-24	476	0.09735	0.0011	0.80063	0.0093	0.05966	0.0007	0.03067	0.0007	599	6	597	5	591	23	611	13
GJ-25	476	0.09784	0.0011	0.81295	0.0095	0.06027	0.0007	0.03036	0.0007	602	6	604	5	613	24	605	14
GJ-26	476	0.09835	0.0011	0.81000	0.0093	0.05975	0.0007	0.03185	0.0007	605	6	603	5	594	24	634	13
GJ-27	476	0.09684	0.0011	0.80865	0.0093	0.06058	0.0007	0.03041	0.0007	596	6	602	5	624	23	606	14
GJ-1	529	0.09803	0.0010	0.81538	0.0093	0.06033	0.0007	0.03049	0.0008	603	6	606	5	616	24	607	15
GJ-2	529	0.09906	0.0011	0.82151	0.0094	0.06015	0.0007	0.03155	0.0007	609	6	609	5	609	23	628	13
GJ-3	529	0.09683	0.0011	0.79905	0.0091	0.05985	0.0007	0.03007	0.0006	596	6	596	5	598	23	599	13
GJ-4	529	0.09701	0.0010	0.80426	0.0092	0.06013	0.0007	0.03001	0.0007	597	6	599	5	608	24	598	14
GJ-5	529	0.09726	0.0010	0.80759	0.0092	0.06023	0.0007	0.03091	0.0007	598	6	601	5	612	24	615	14
GJ-6	529	0.09749	0.0011	0.80986	0.0093	0.06026	0.0007	0.03036	0.0007	600	6	602	5	613	24	605	14
GJ-7	529	0.09714	0.0011	0.80628	0.0093	0.06021	0.0007	0.03005	0.0007	598	6	600	5	611	23	598	13
GJ-8	529	0.09654	0.0011	0.79700	0.0092	0.05988	0.0007	0.03001	0.0007	594	6	595	5	599	23	598	13
GJ-9	529	0.09831	0.0011	0.81508	0.0094	0.06014	0.0007	0.03094	0.0007	605	6	605	5	609	23	616	13
GJ-10	529	0.09812	0.0011	0.81522	0.0095	0.06026	0.0007	0.03175	0.0007	603	6	605	5	613	23	632	13
GJ-11	529	0.09871	0.0011	0.81807	0.0094	0.06011	0.0007	0.03114	0.0007	607	6	607	5	608	23	620	13
GJ-12	529	0.09790	0.0011	0.81131	0.0093	0.06011	0.0007	0.03057	0.0007	602	6	603	5	607	24	609	13
GJ-13	529	0.09598	0.0010	0.79438	0.0092	0.06003	0.0007	0.03059	0.0007	591	6	594	5	605	24	609	13
GJ-14	529	0.09657	0.0010	0.80172	0.0095	0.06021	0.0007	0.03178	0.0008	594	6	598	5	611	25	632	16
GJ-15	529	0.09858	0.0011	0.81697	0.0097	0.06011	0.0007	0.03033	0.0008	606	6	606	5	607	24	604	15
GJ-16	529	0.09886	0.0011	0.82151	0.0097	0.06026	0.0007	0.03071	0.0008	608	6	609	5	613	24	611	15

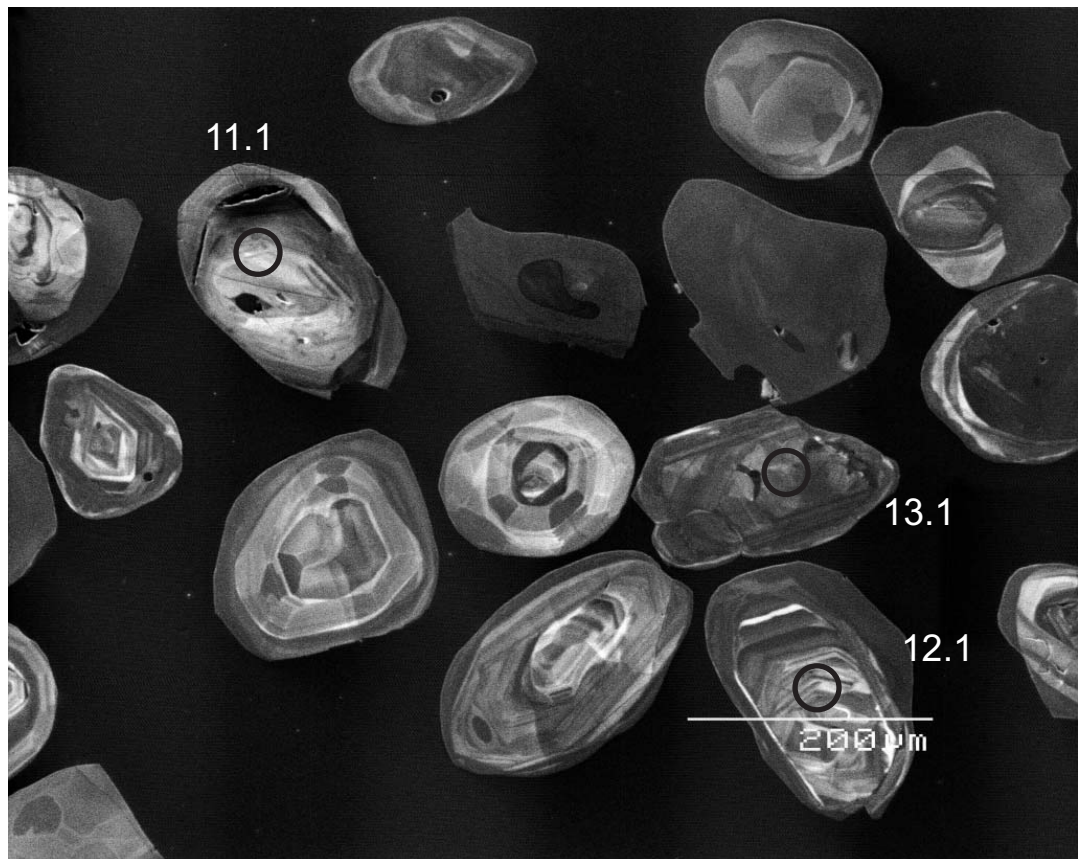
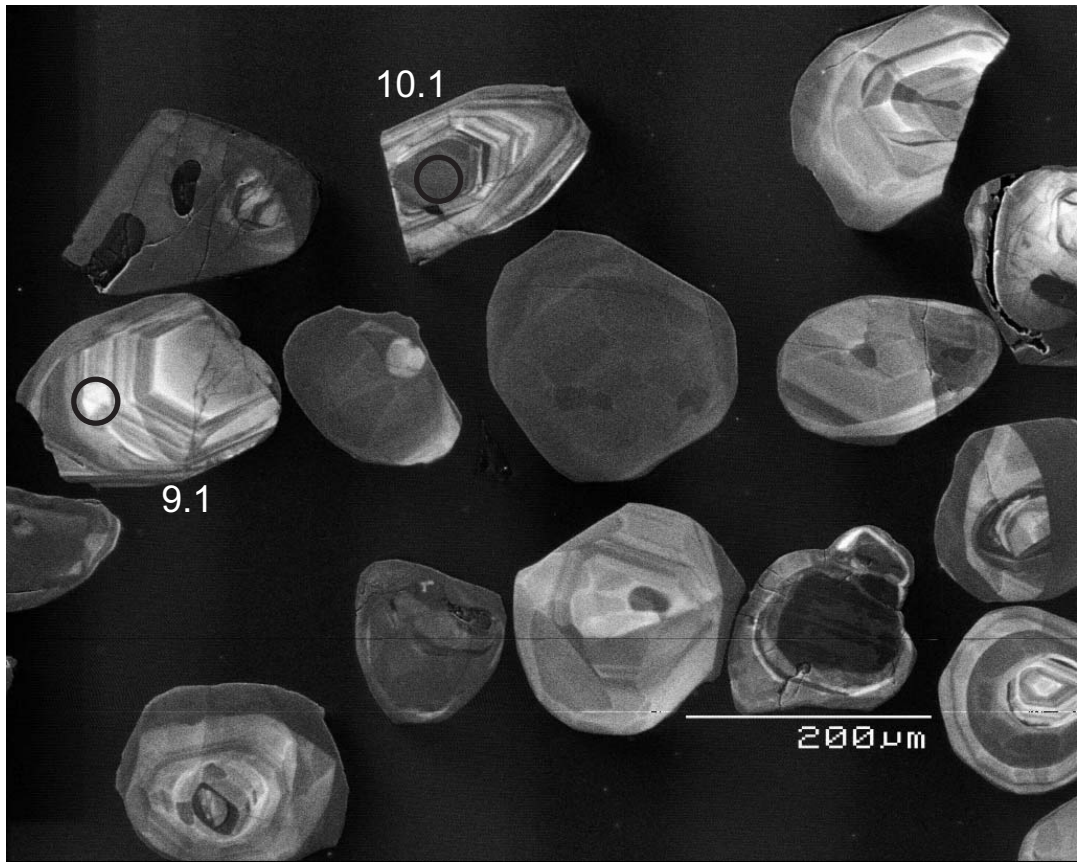
TIMS data for standard GJ-1 ($^{207}\text{Pb}/^{206}\text{Pb}=608.3$ Ma, $^{206}\text{Pb}/^{238}\text{U}=600.7$ Ma and $^{207}\text{Pb}/^{235}\text{U}=602.2$ Ma, Jackson et al., (2004)

Over the duration of the study the 2σ weighted average normalised ages for GJ-1 are 608.8 ± 5.0 ($^{207}\text{Pb}/^{206}\text{Pb}$), 601.1 ± 3.0 ($^{206}\text{Pb}/^{238}\text{U}$), and 602.7 ± 1.1 ($^{207}\text{Pb}/^{235}\text{U}$) Ma ($n=90$).

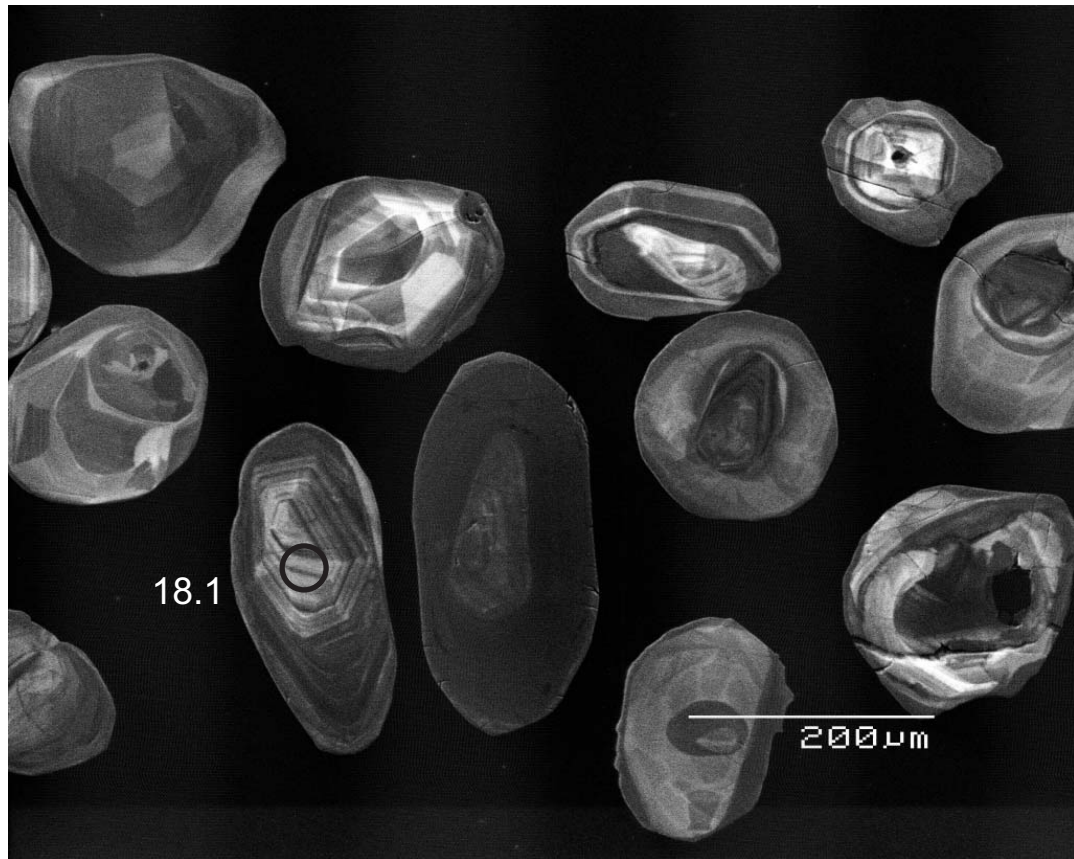
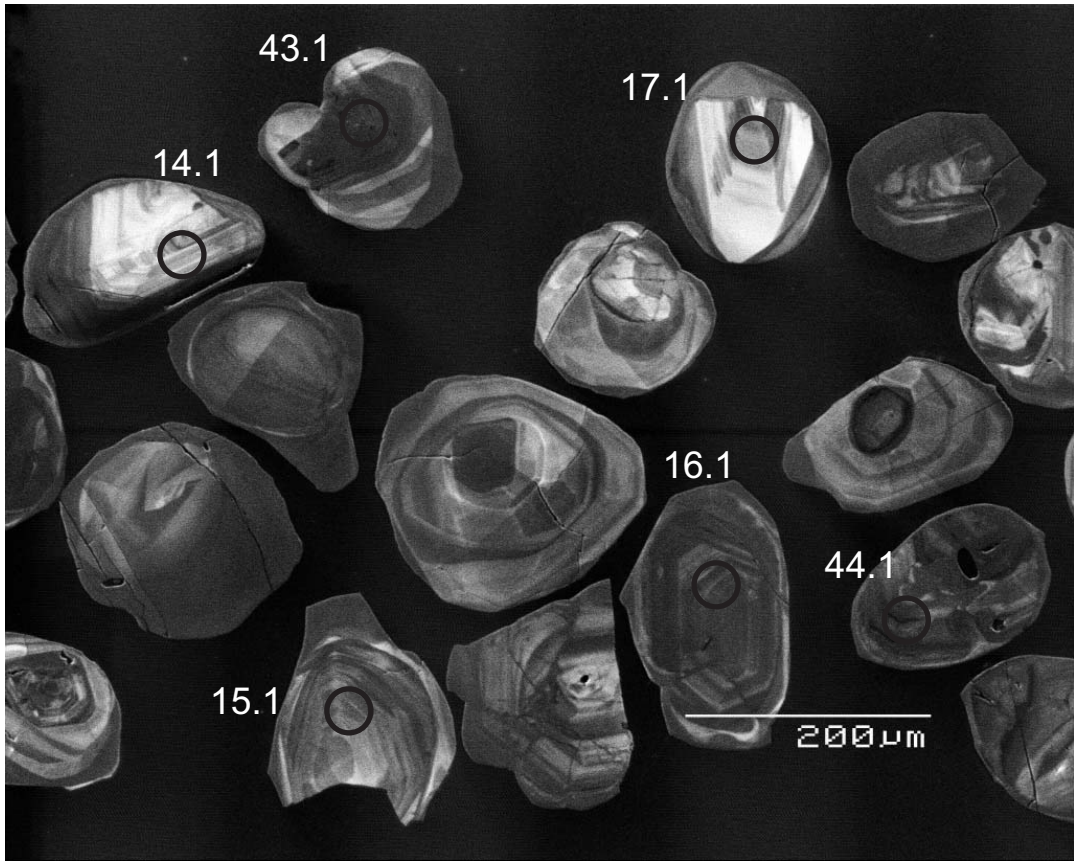
Sample 499/563



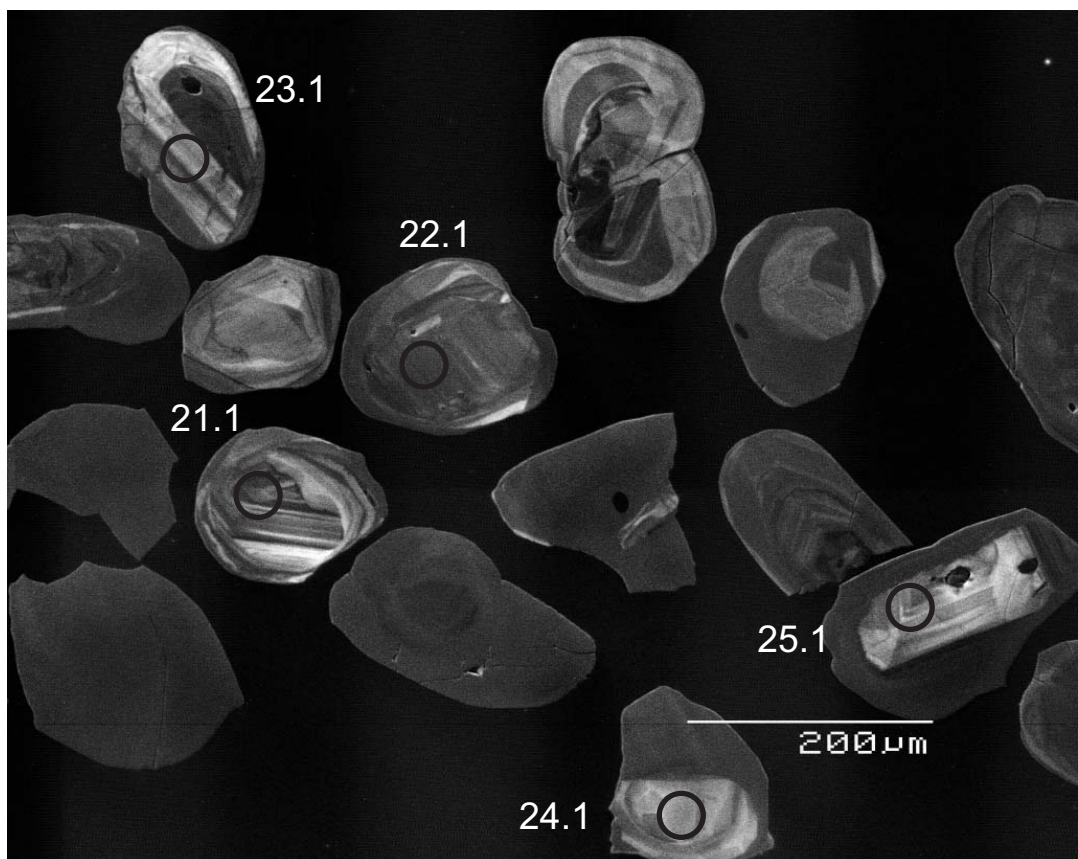
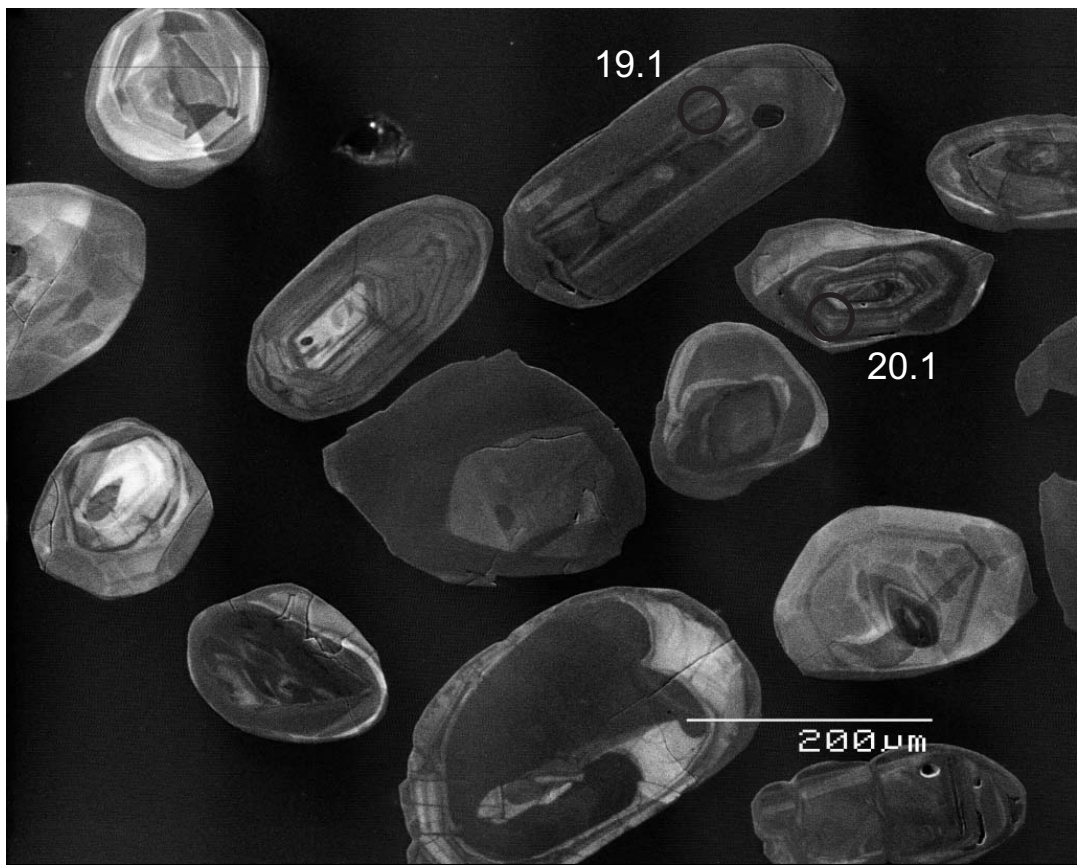
Sample 499/563 contd.



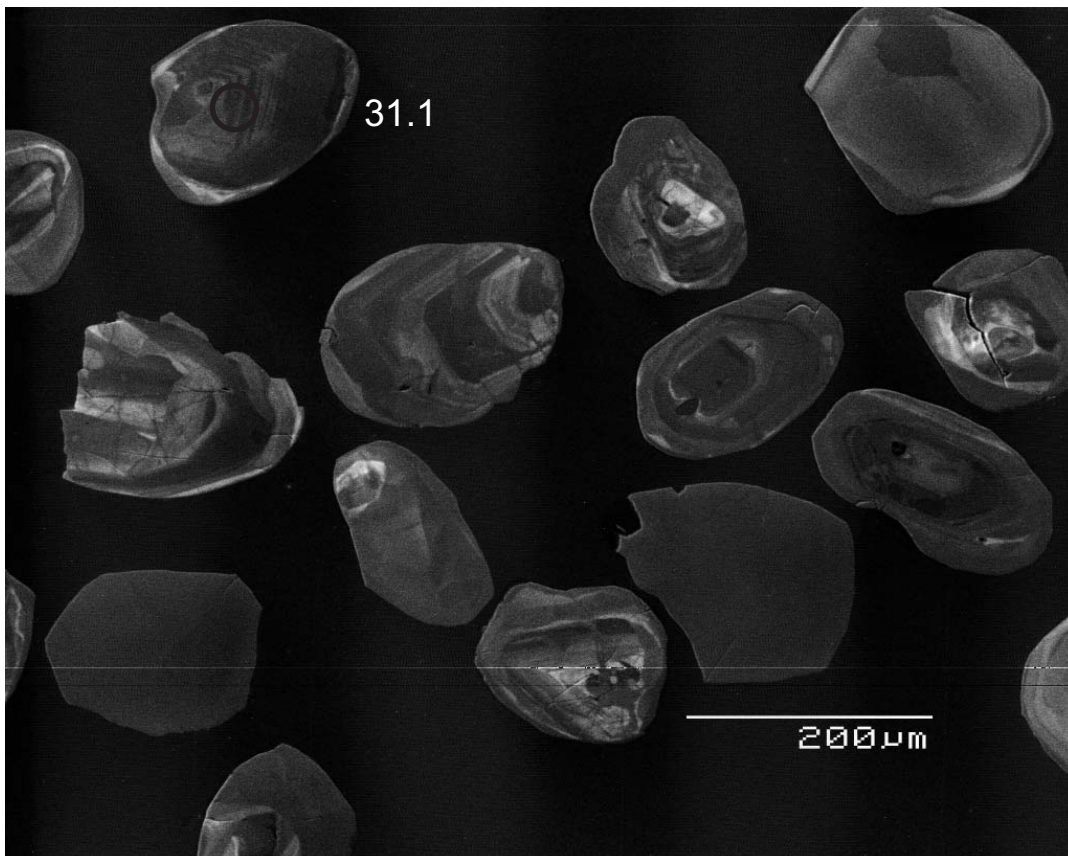
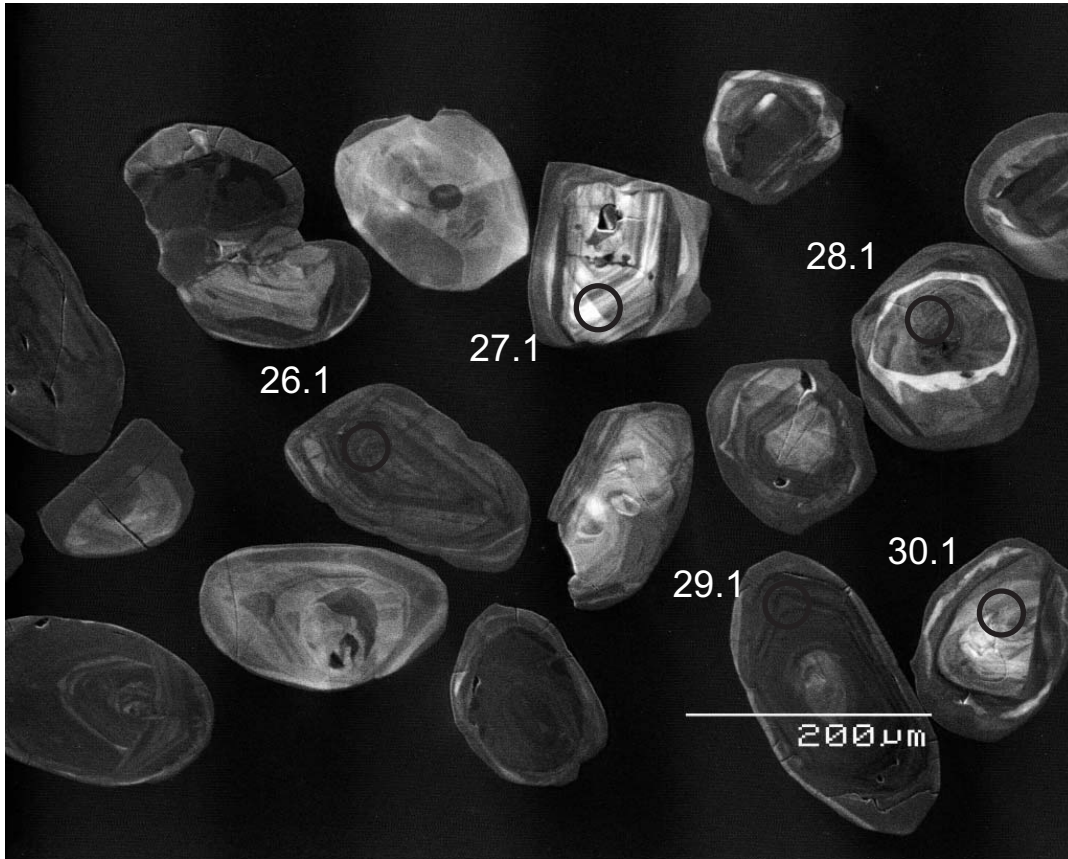
Sample 499/563 contd.



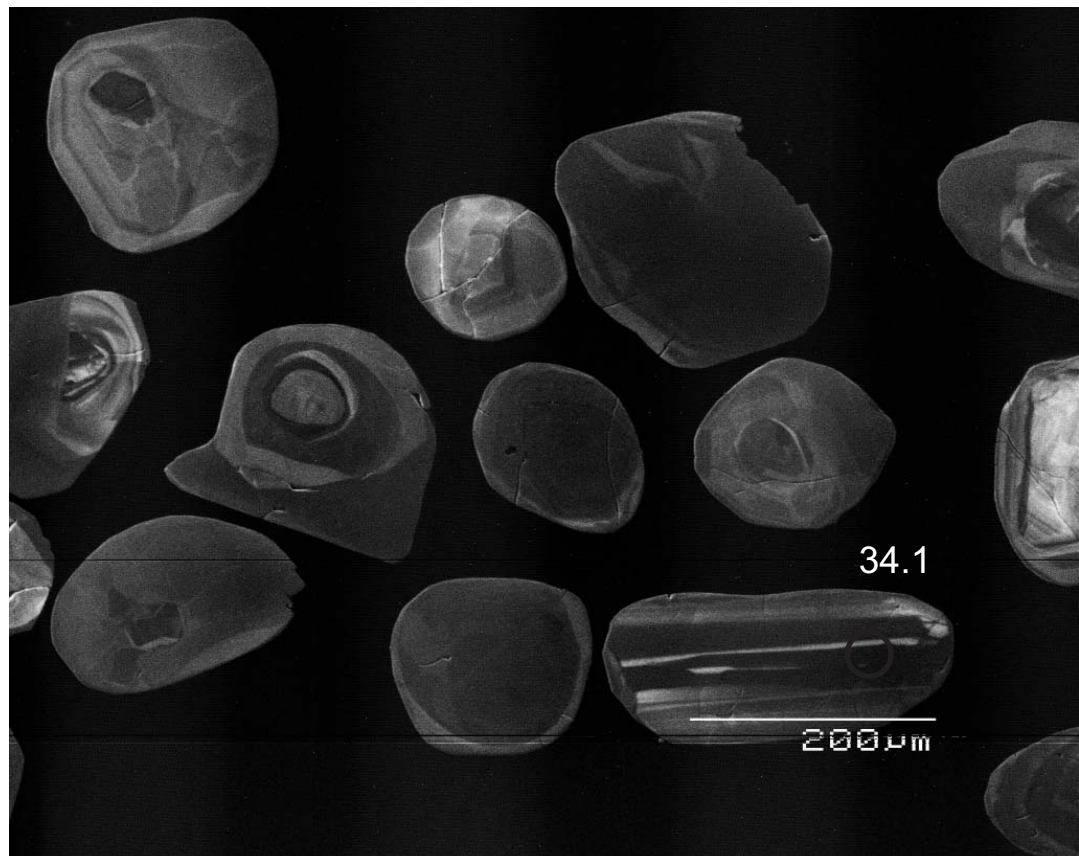
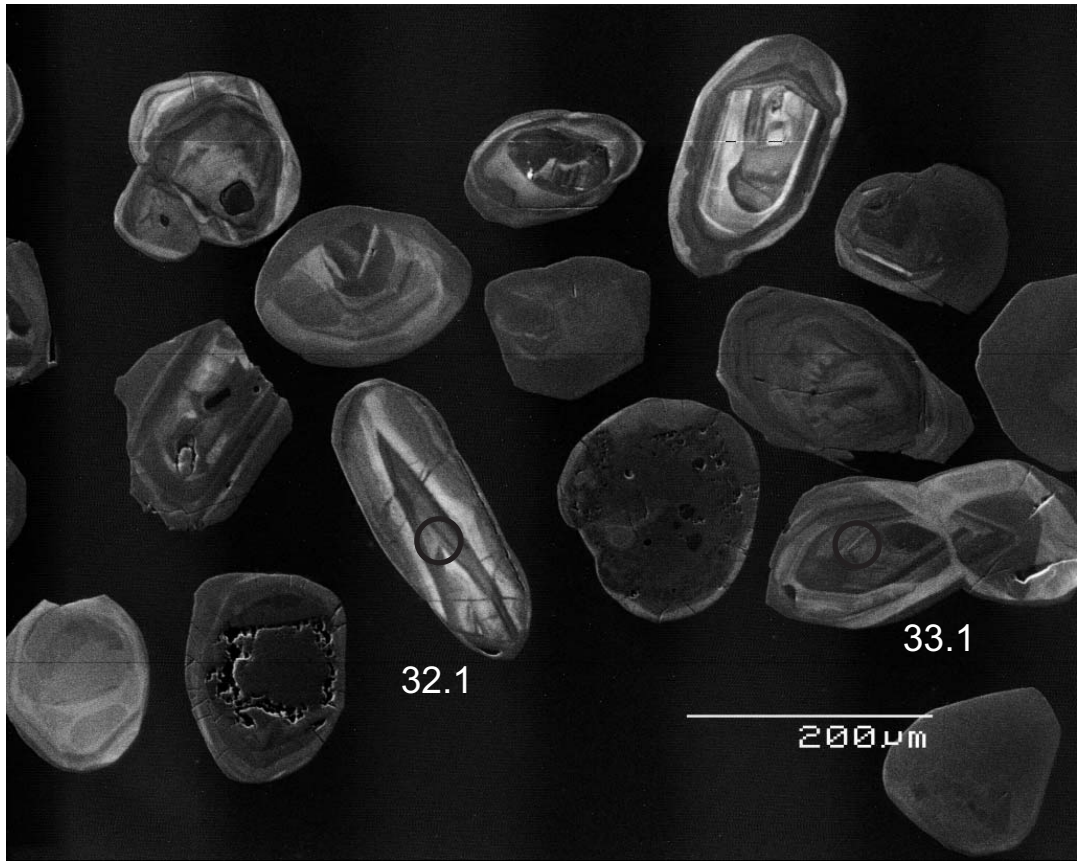
Sample 499/563 contd.



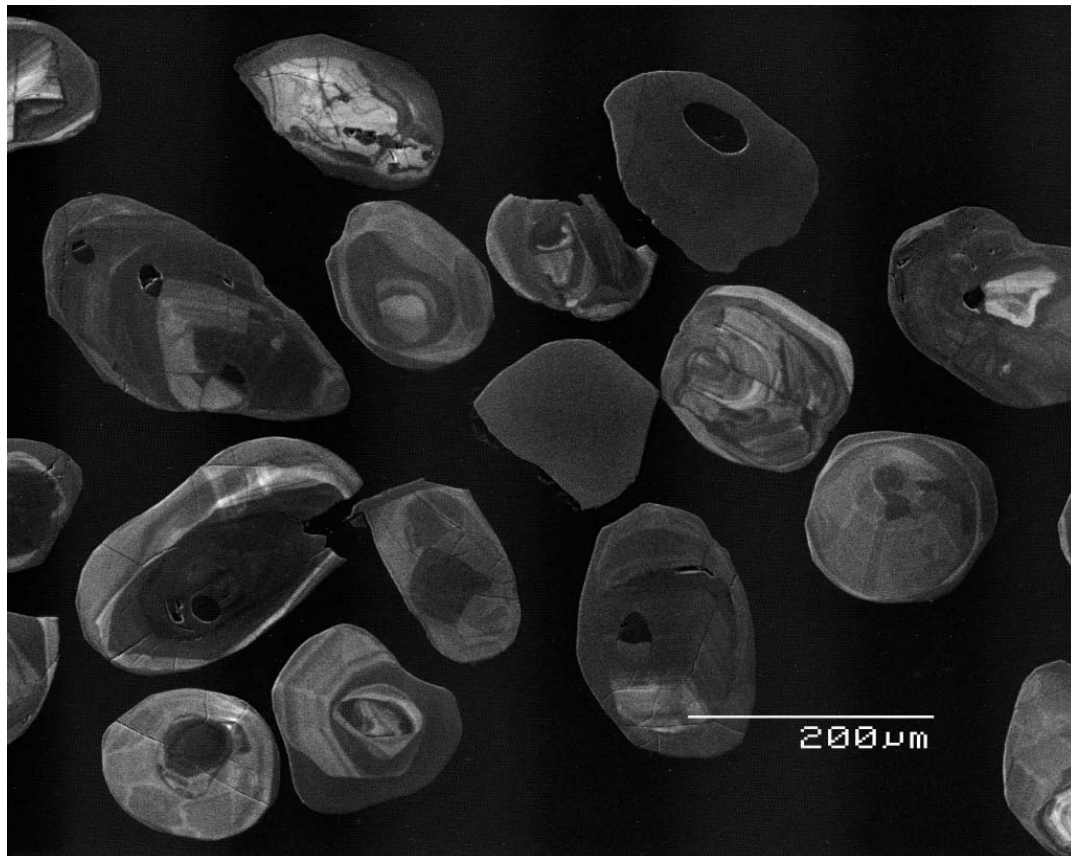
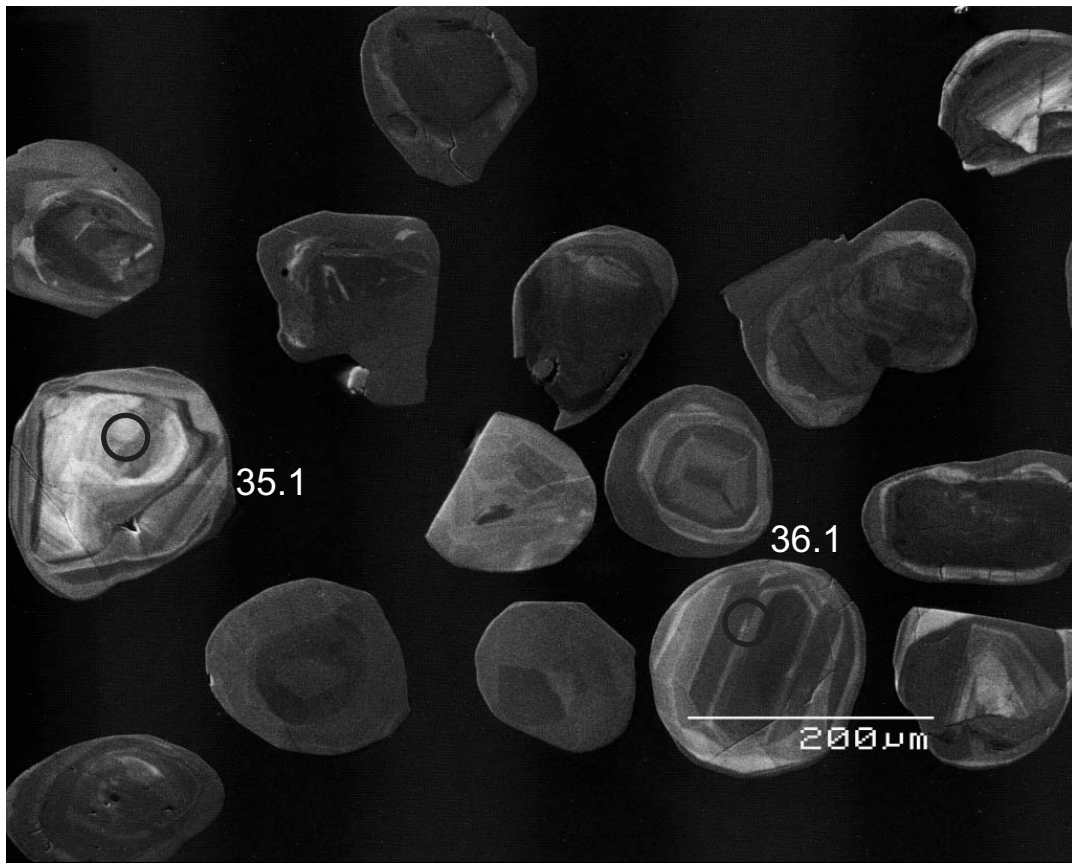
Sample 499/563 contd.



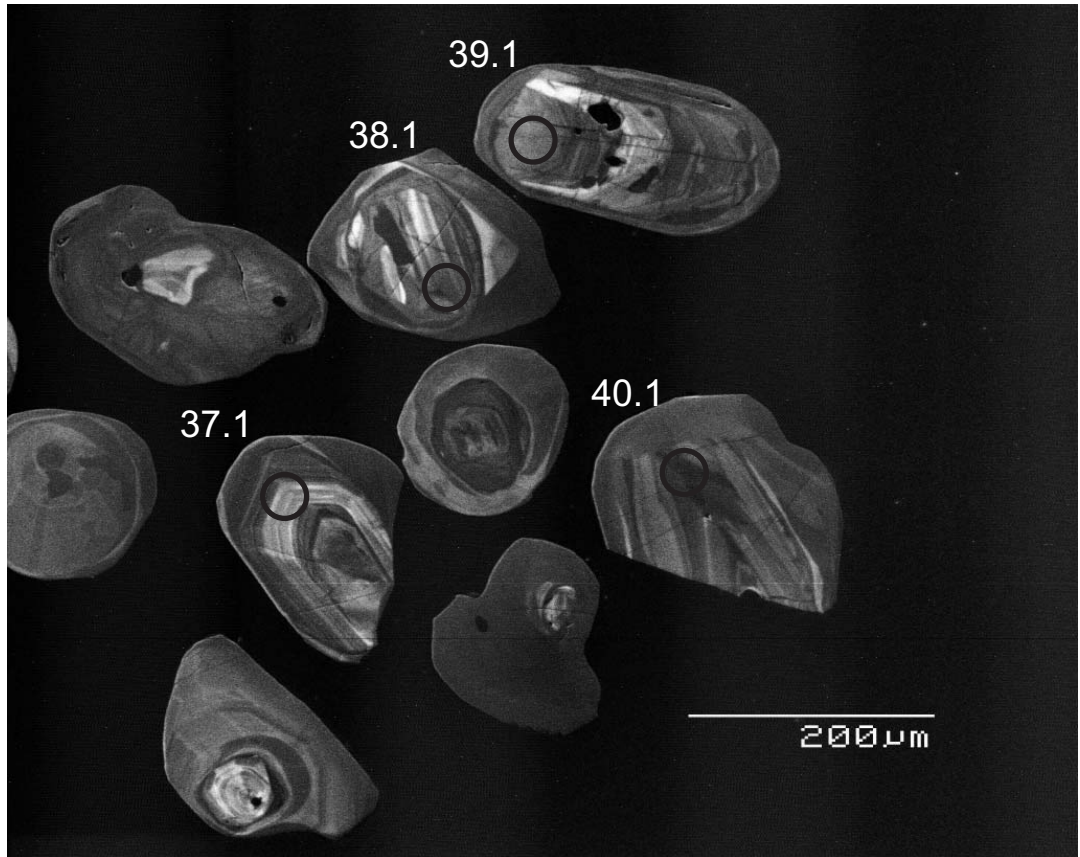
Sample 499/563 contd.



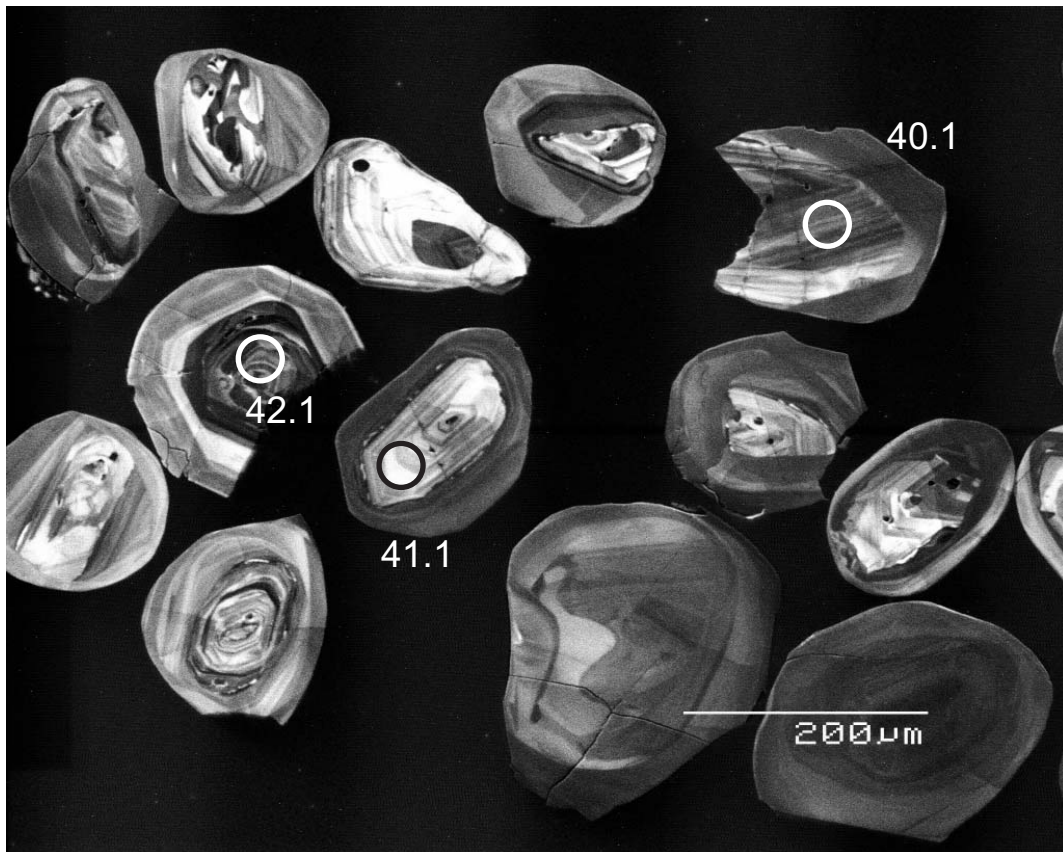
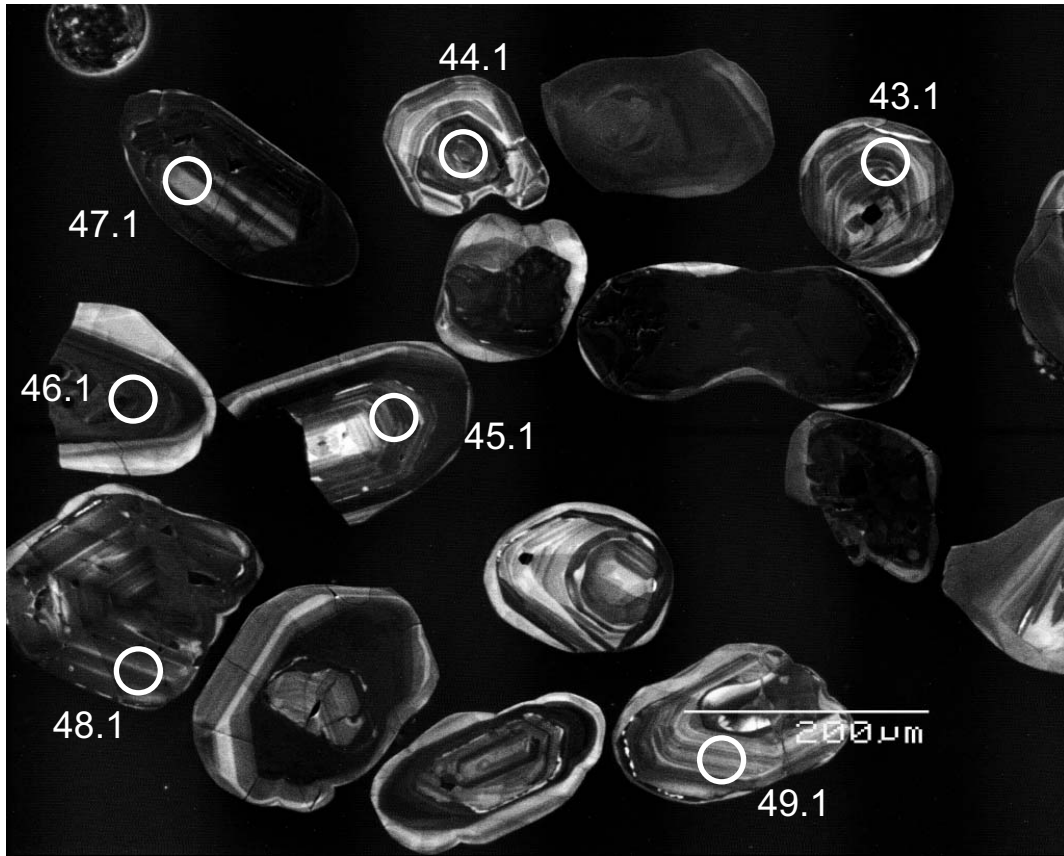
Sample 499/563 contd.



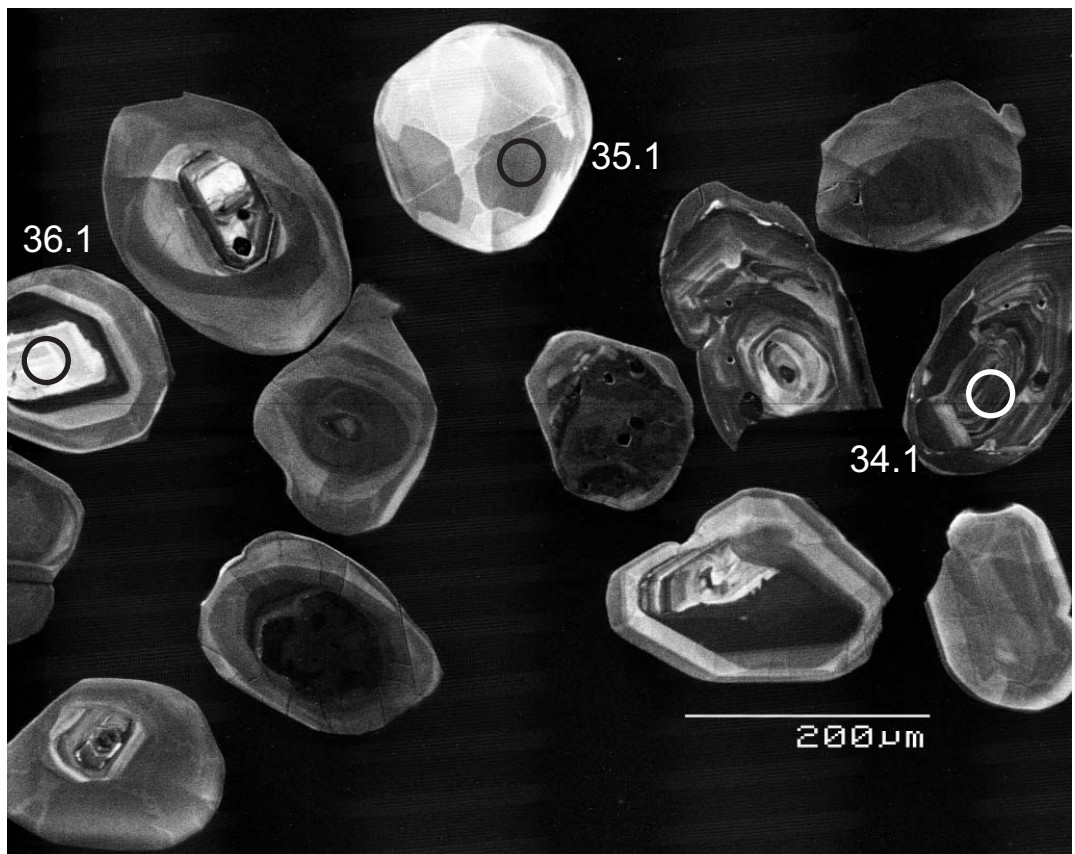
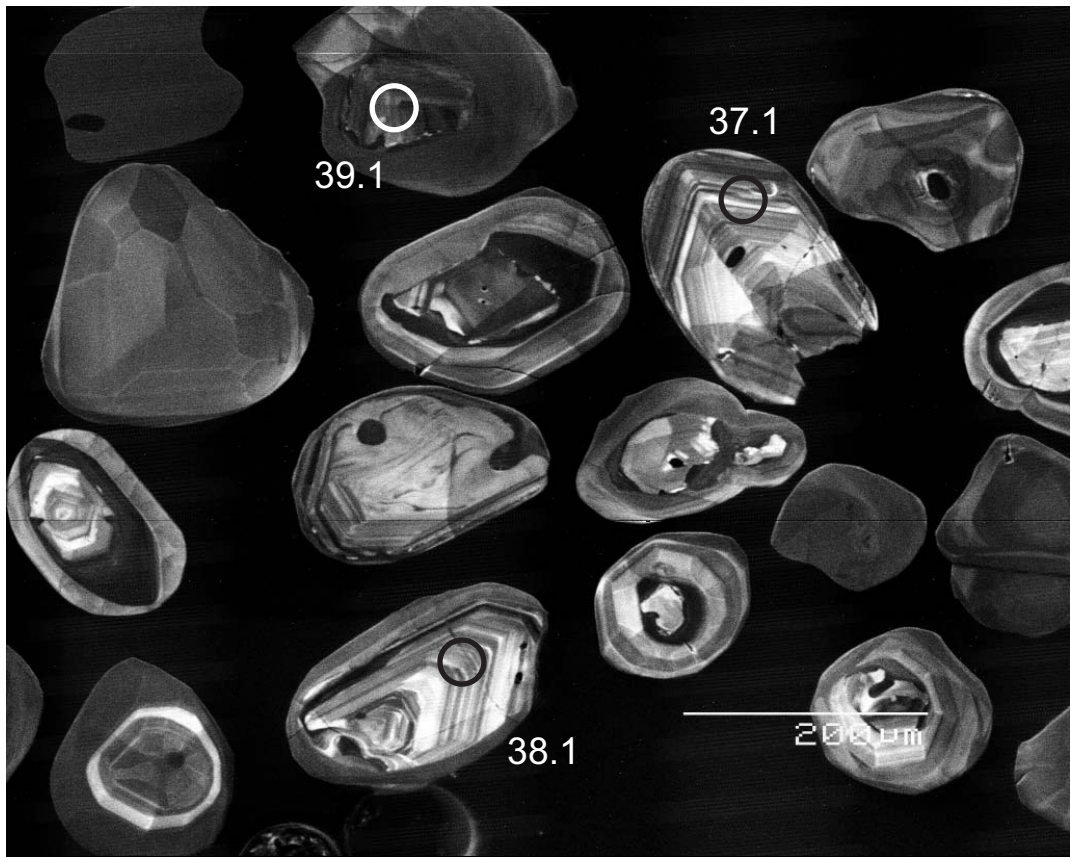
Sample 499/563 contd.



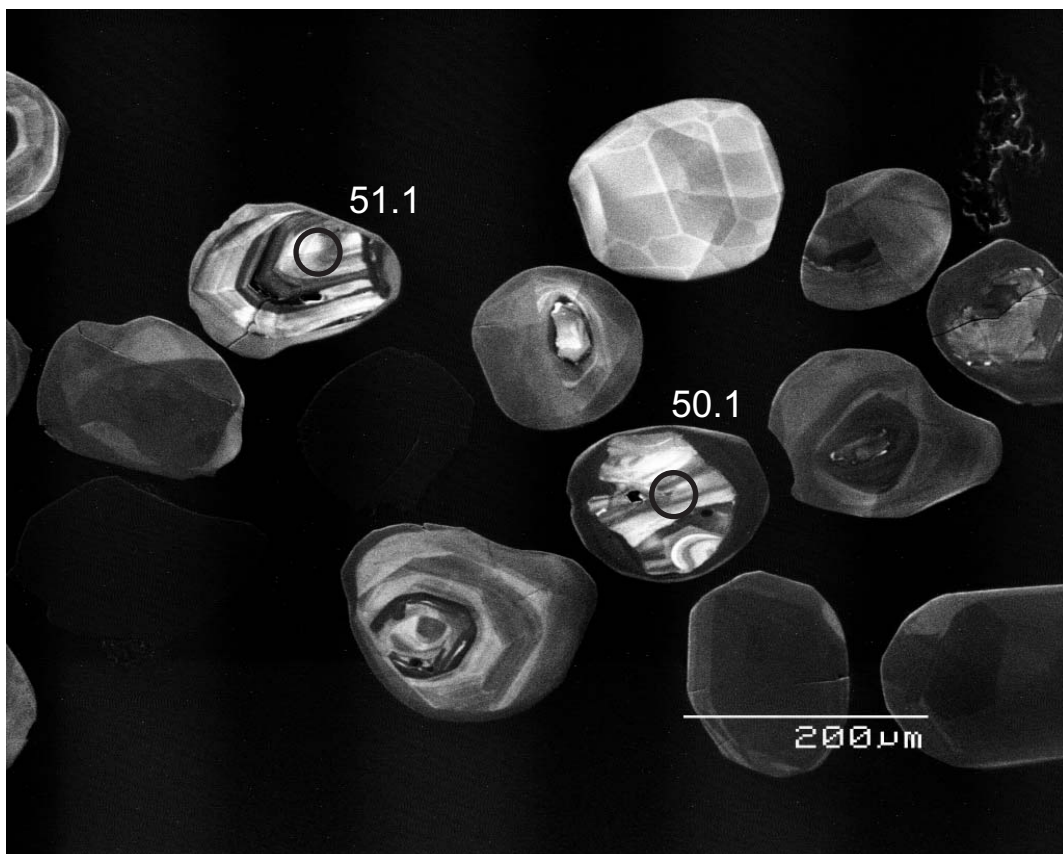
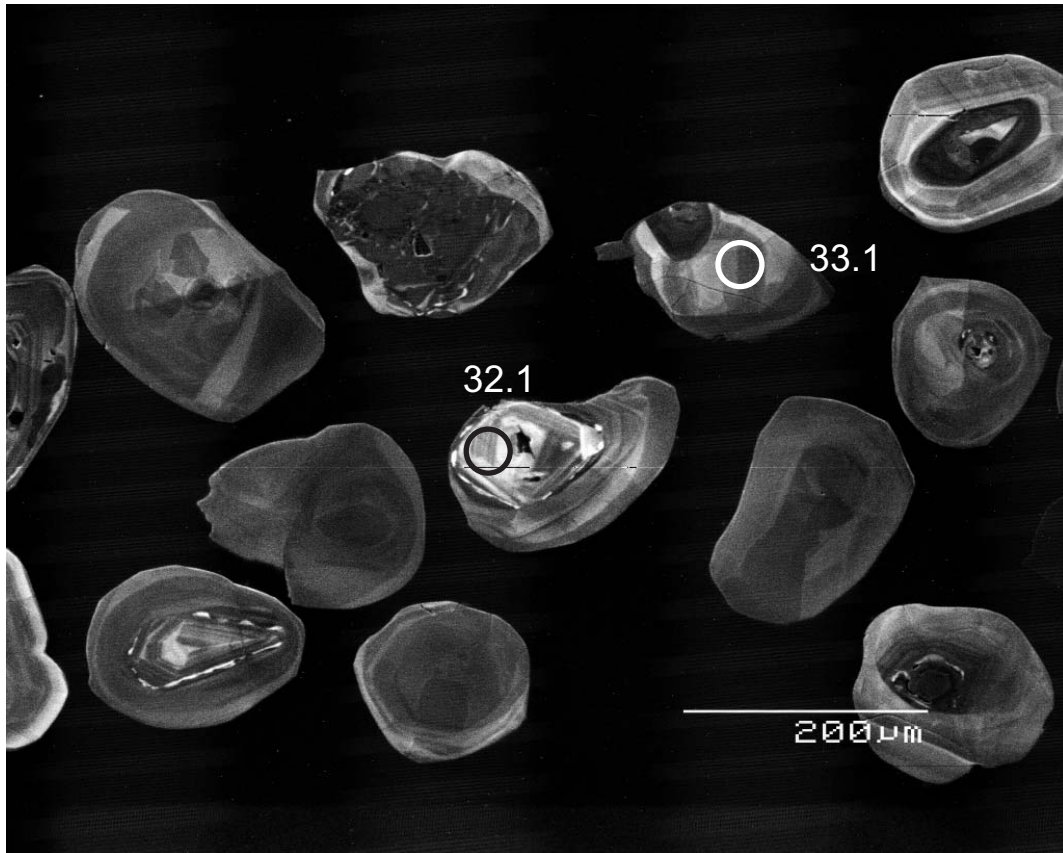
Sample 499/596



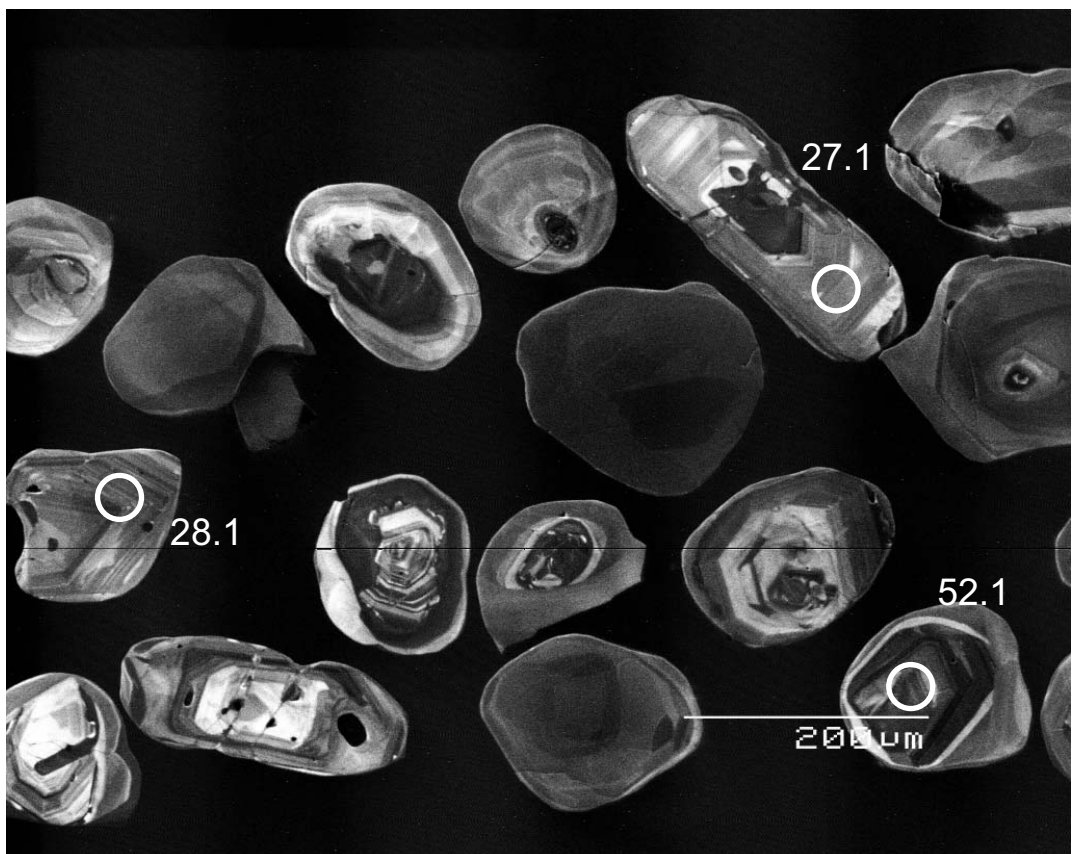
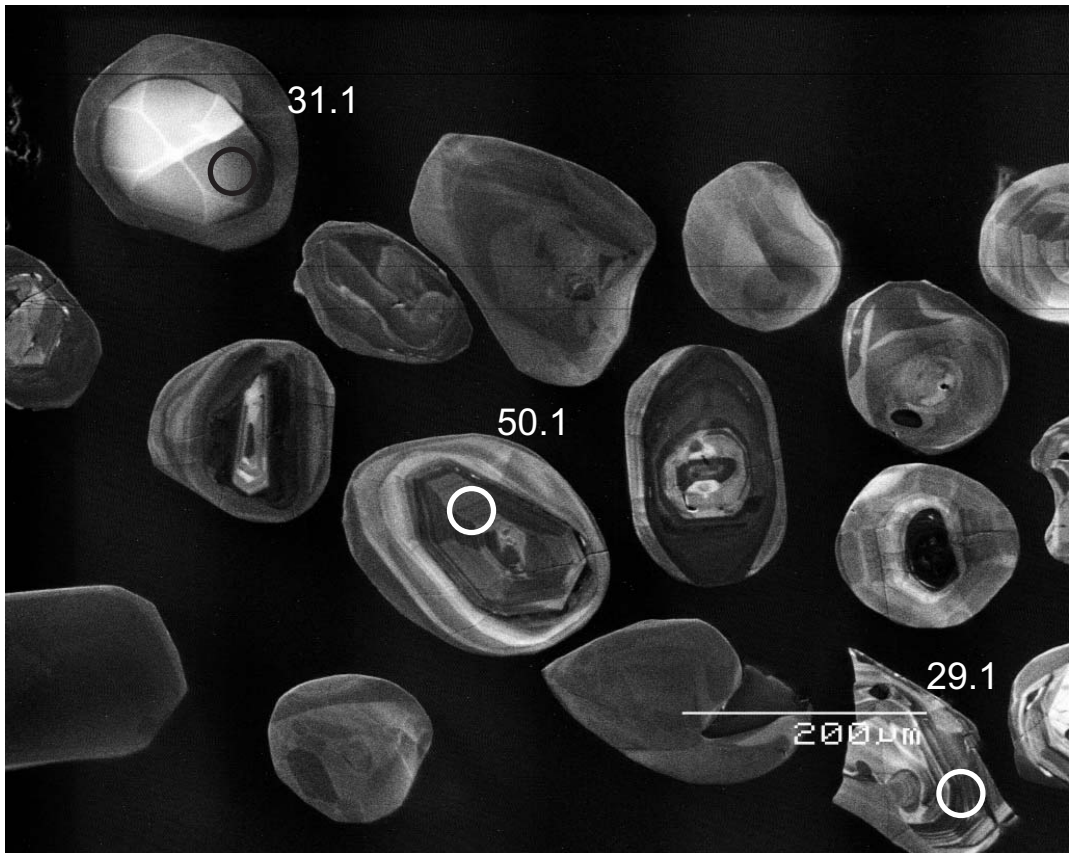
Sample 499/596 contd.



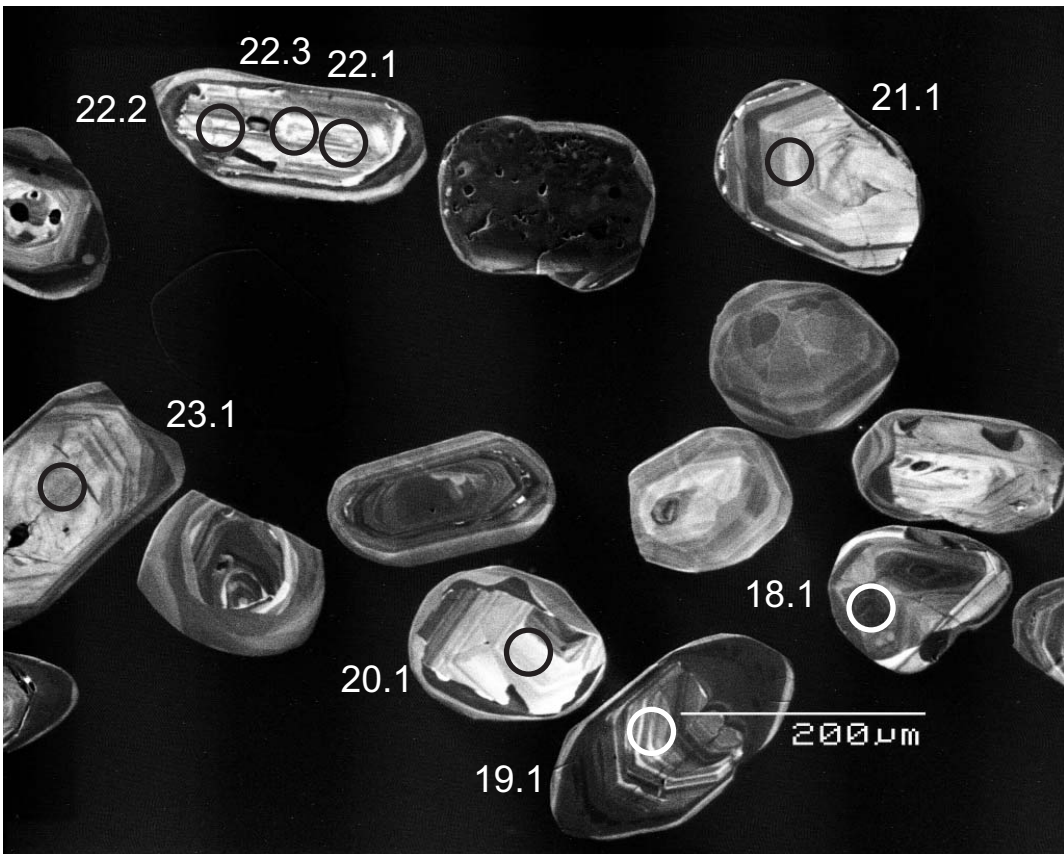
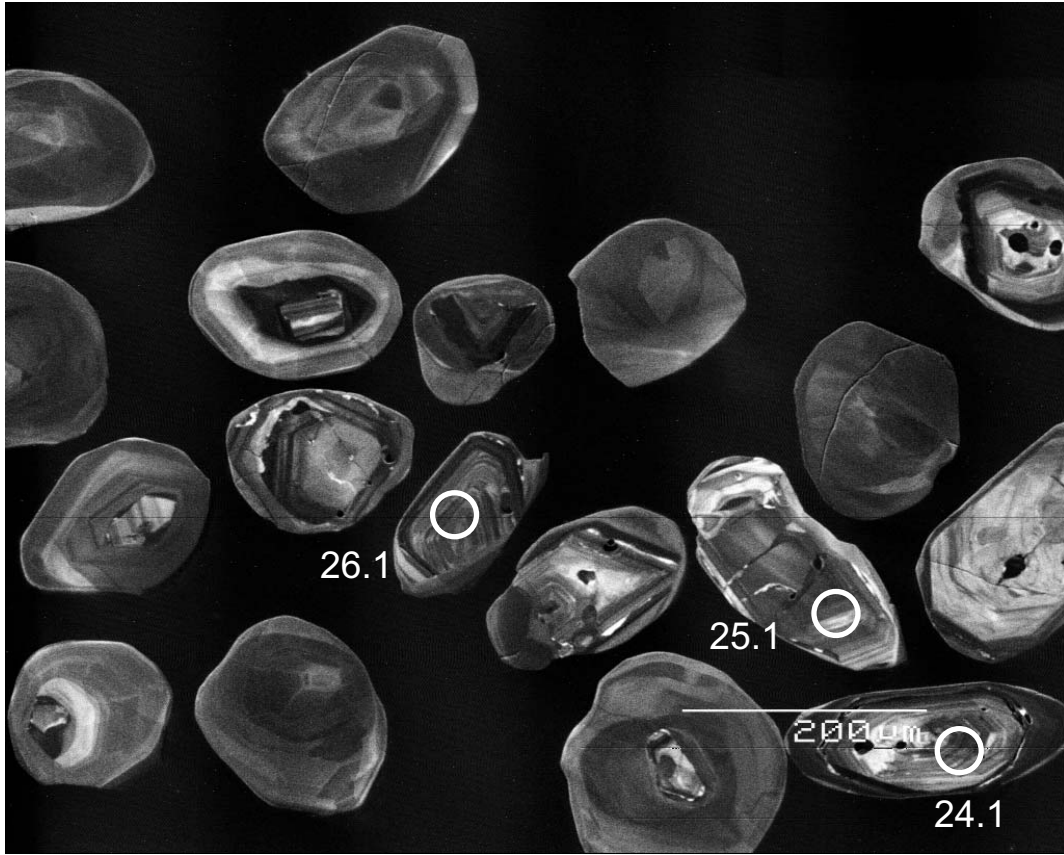
Sample 499/596 contd.



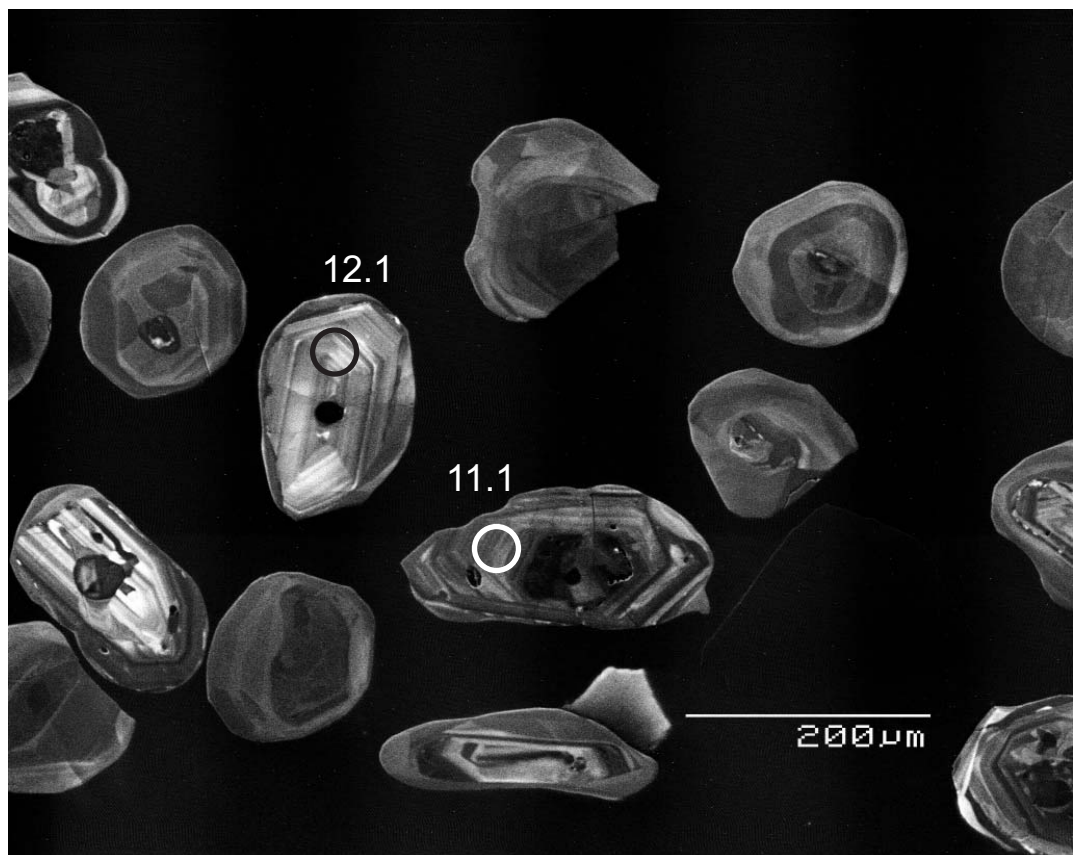
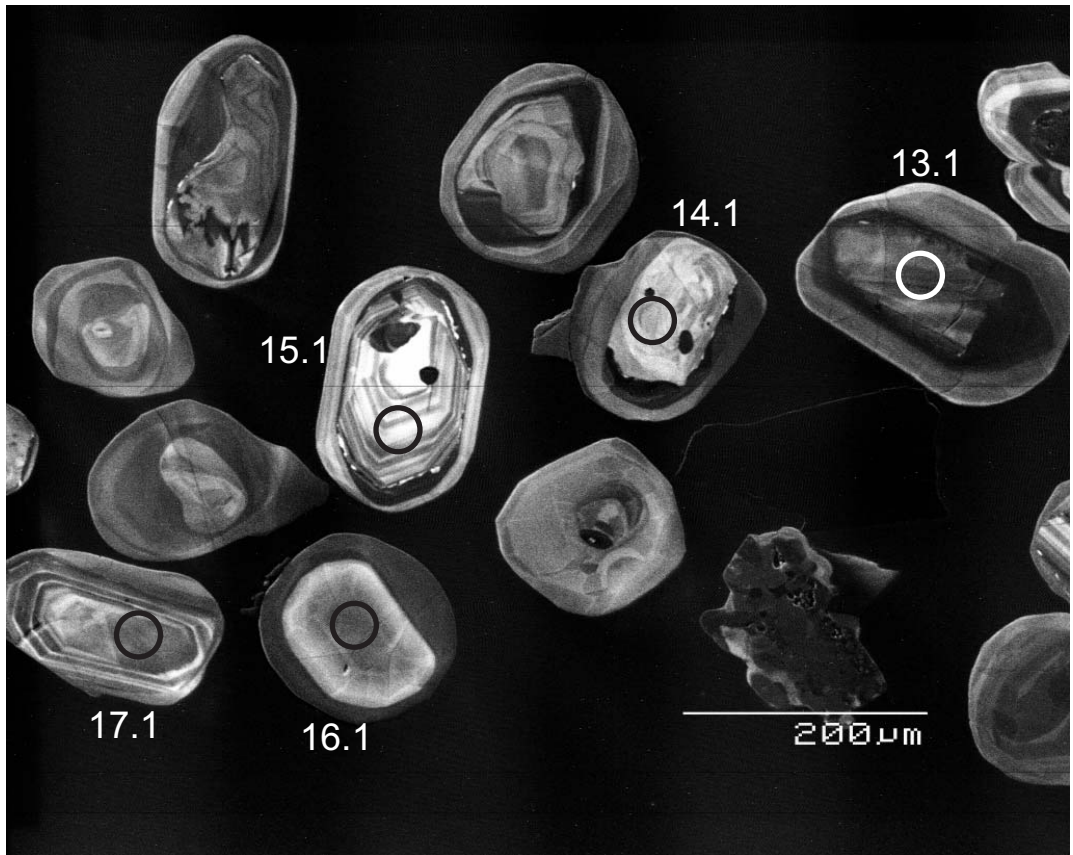
Sample 499/596 contd.



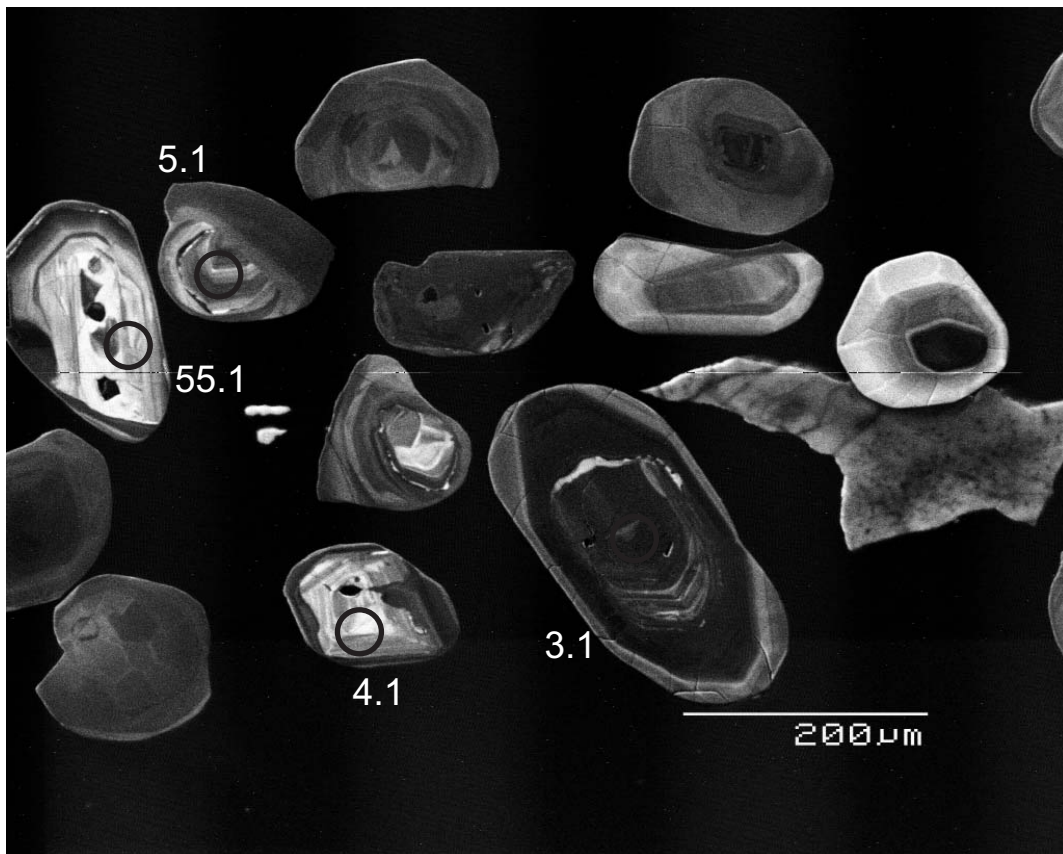
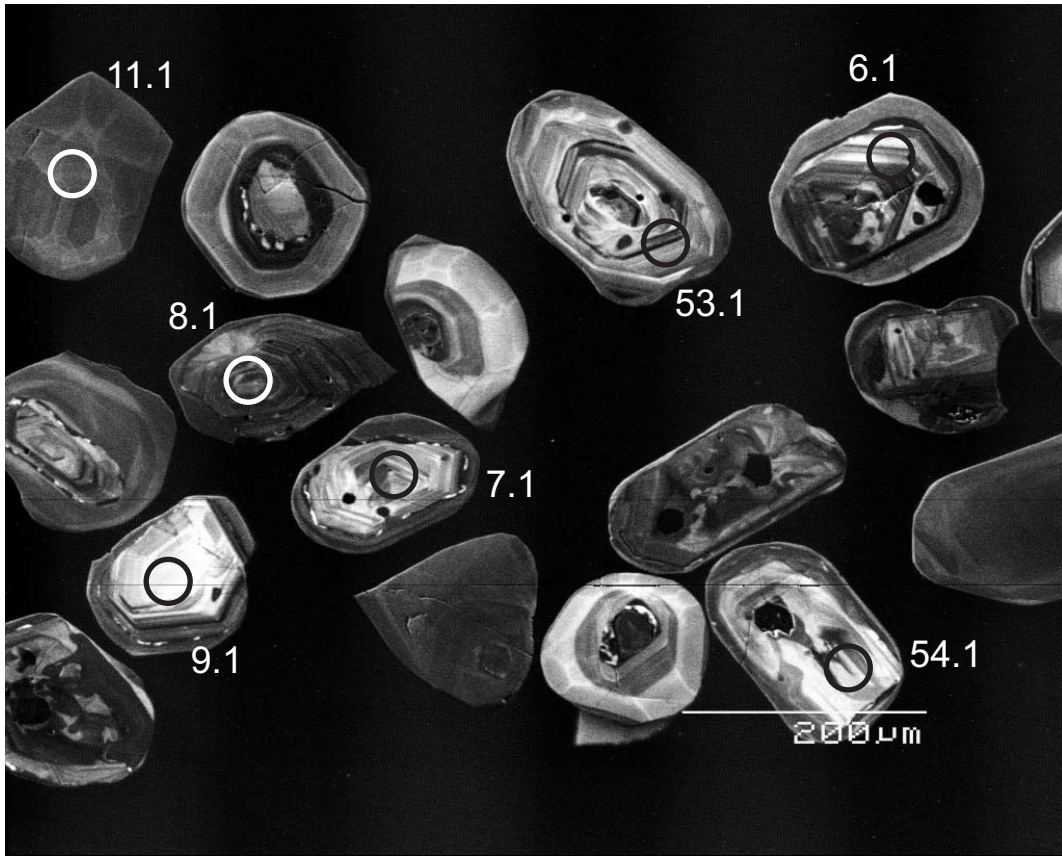
Sample 499/596 contd.



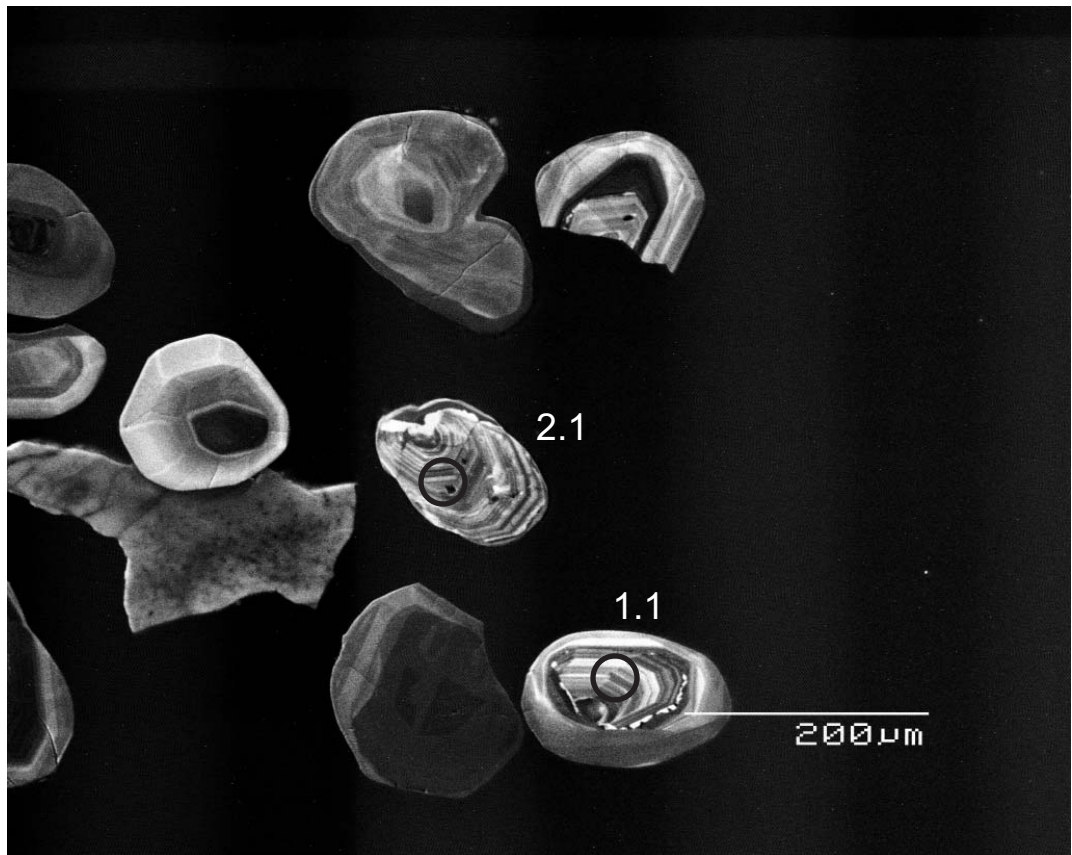
Sample 499/596 contd.



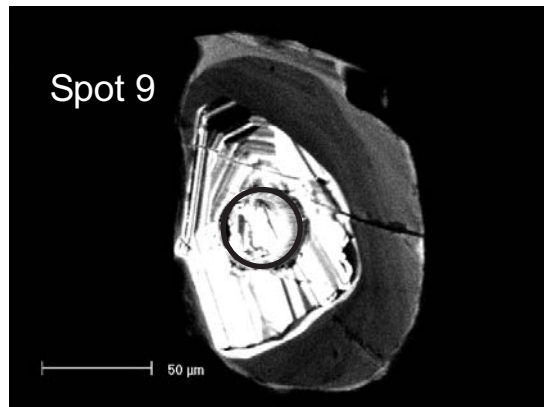
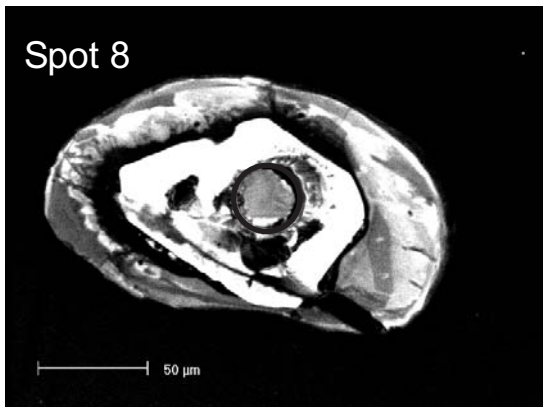
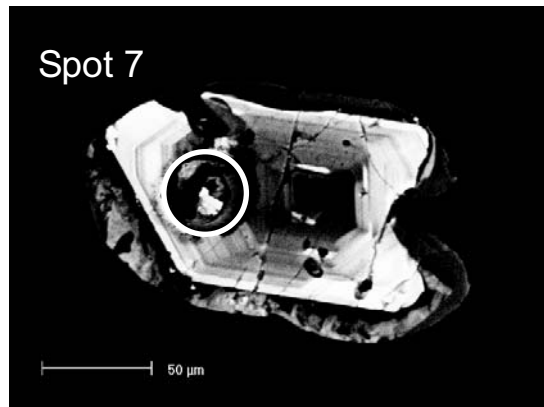
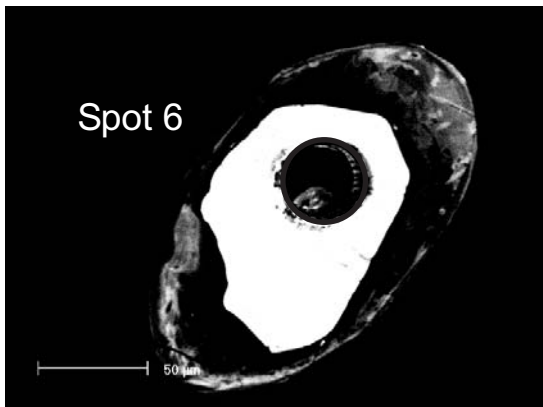
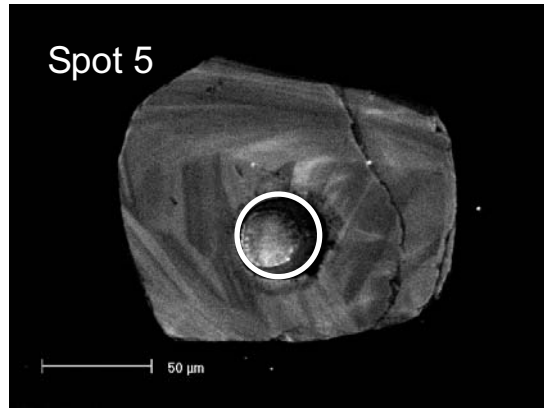
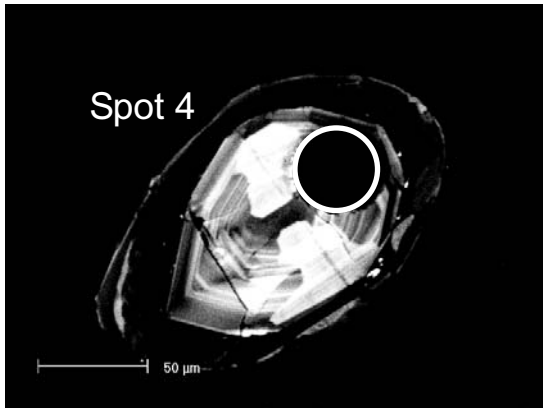
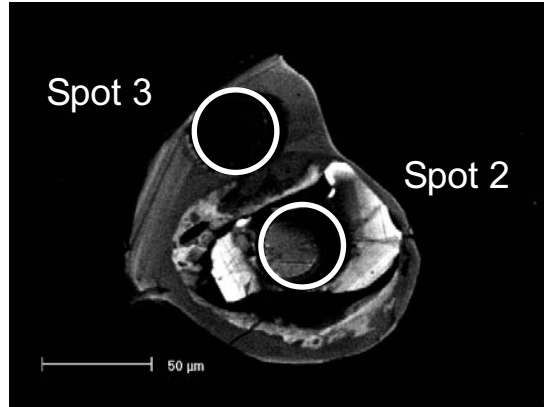
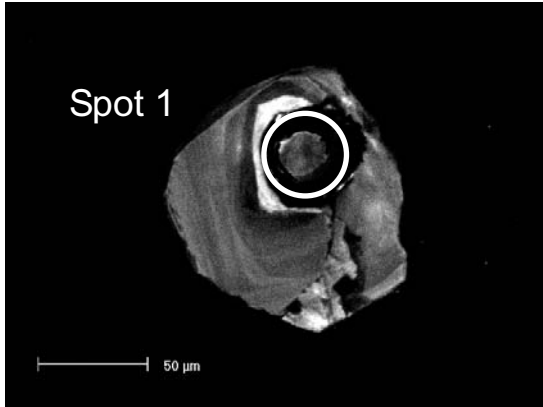
Sample 499/596 contd.



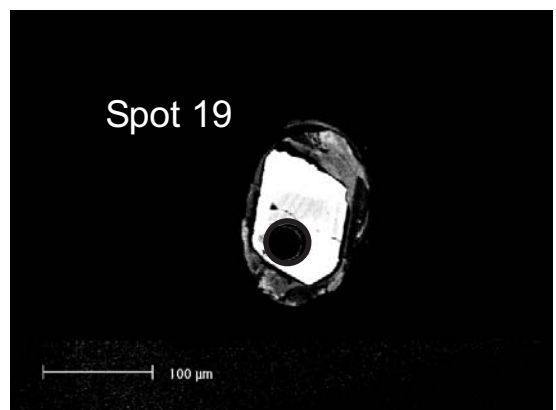
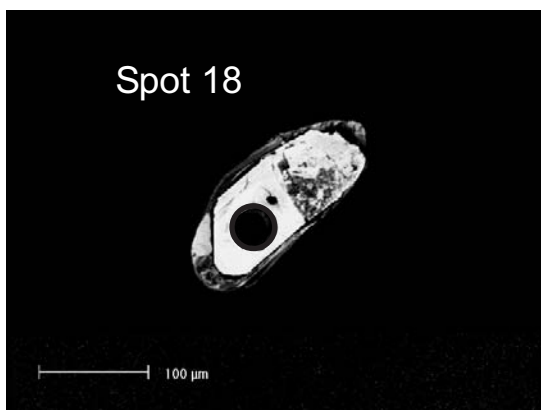
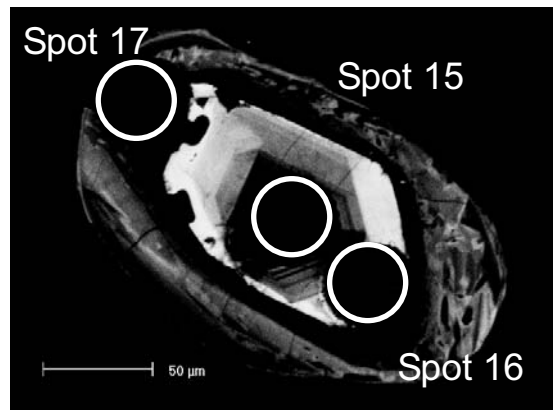
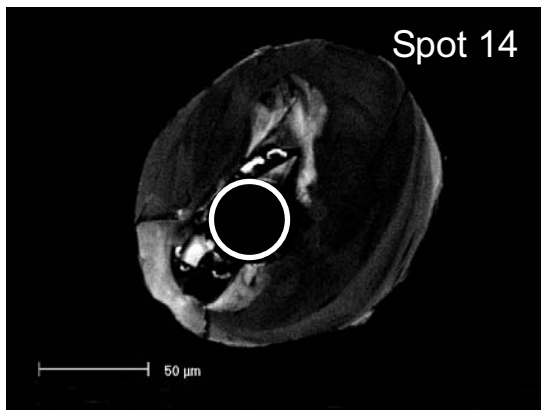
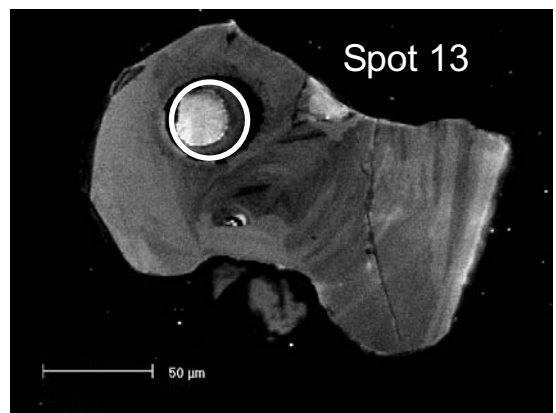
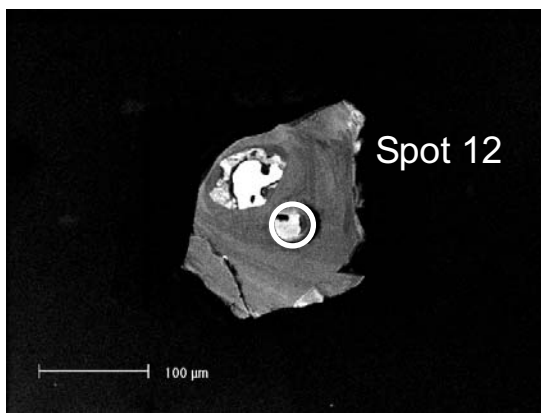
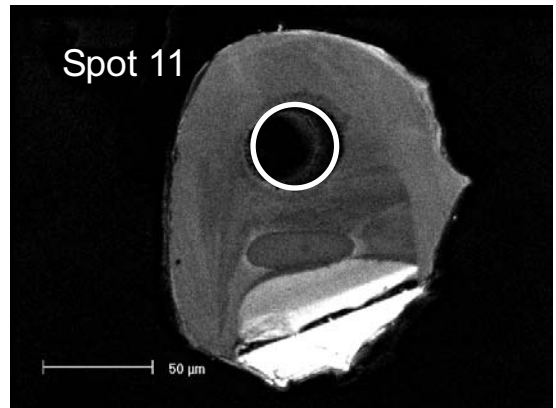
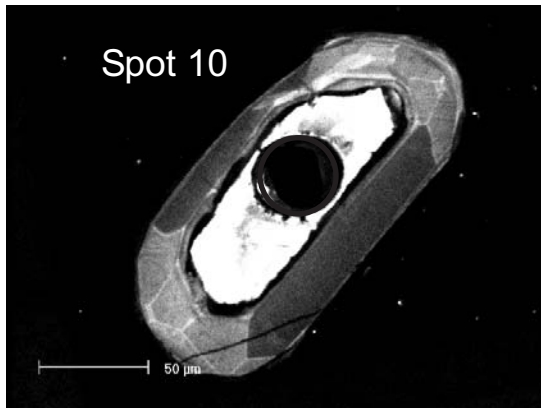
Sample 499/596 contd.



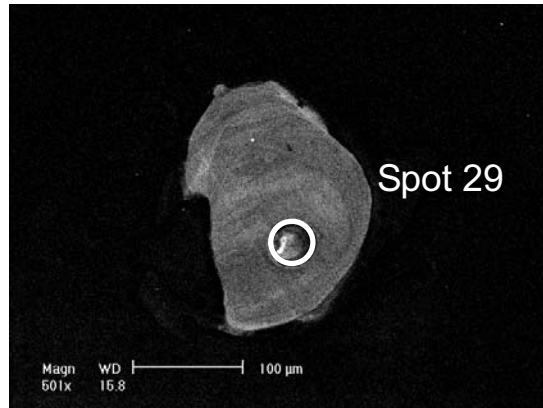
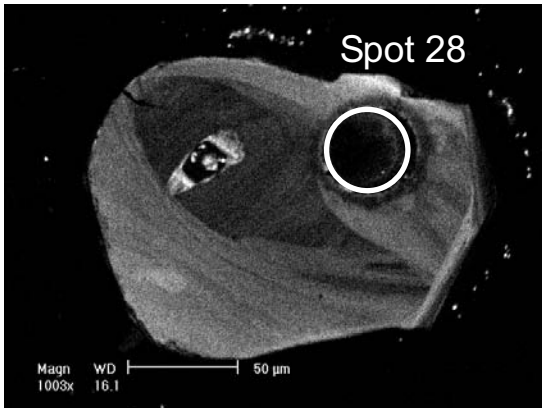
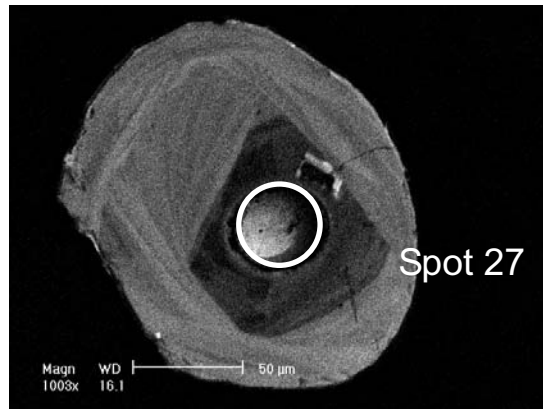
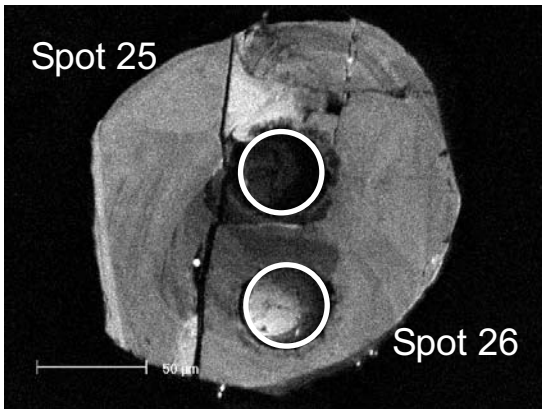
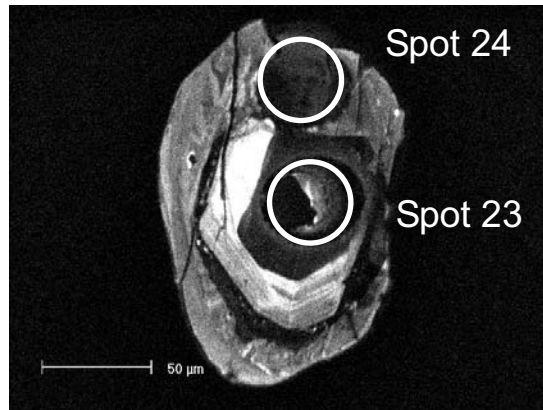
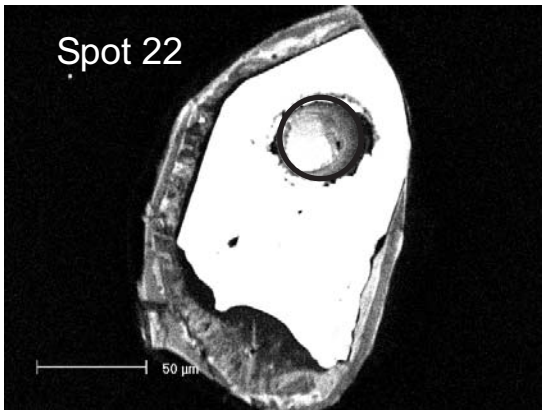
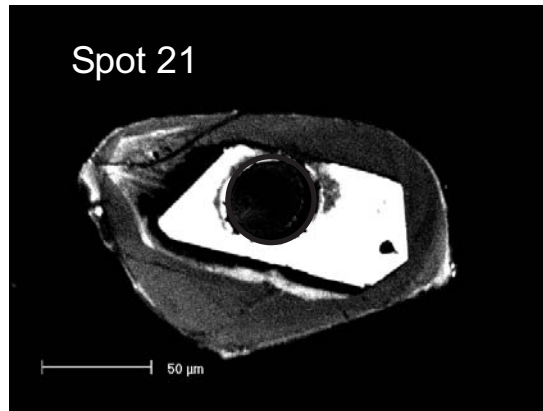
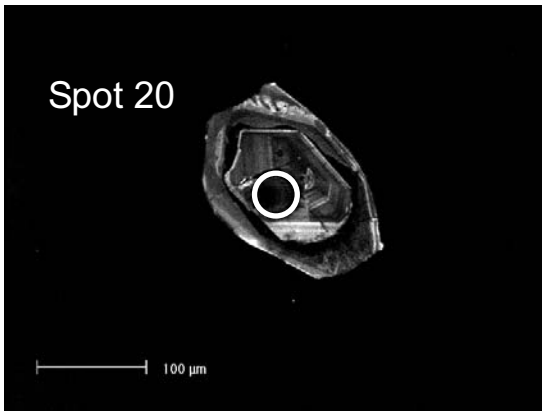
Sample 594



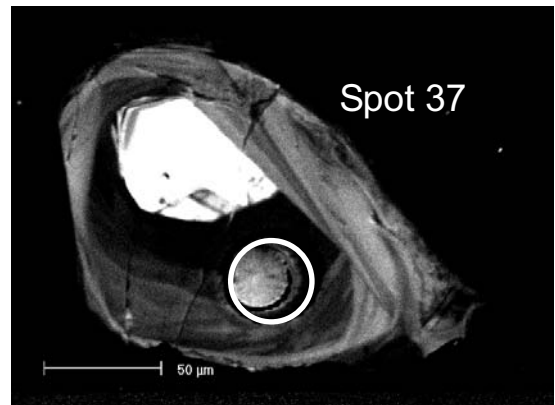
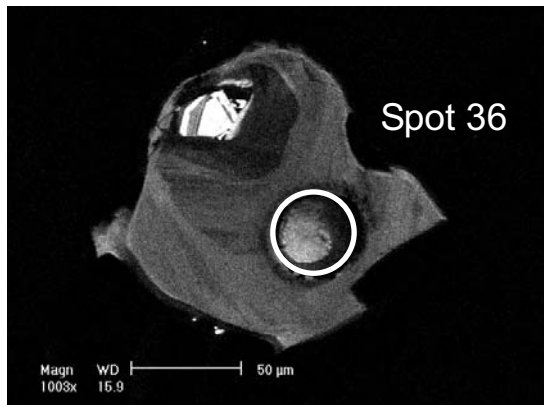
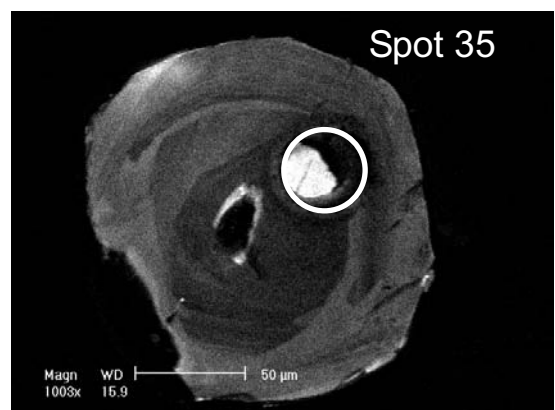
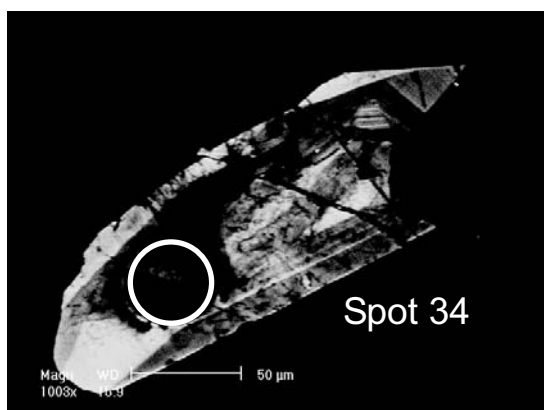
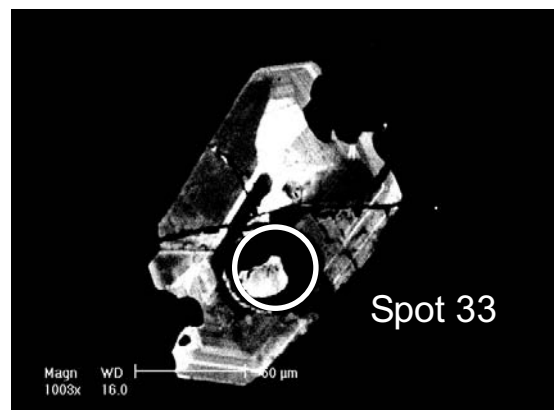
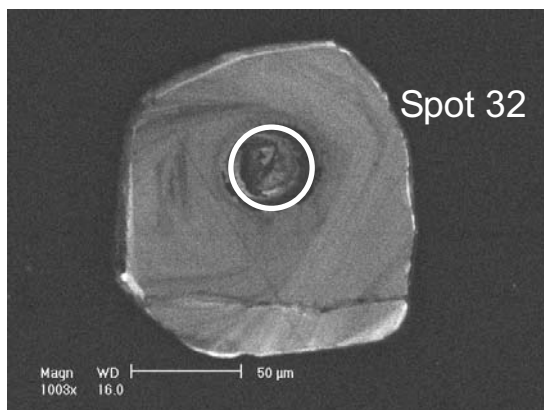
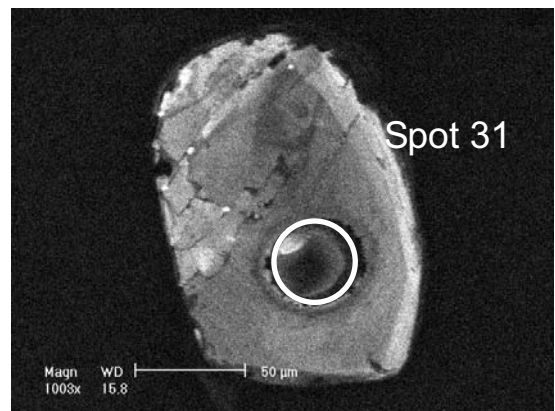
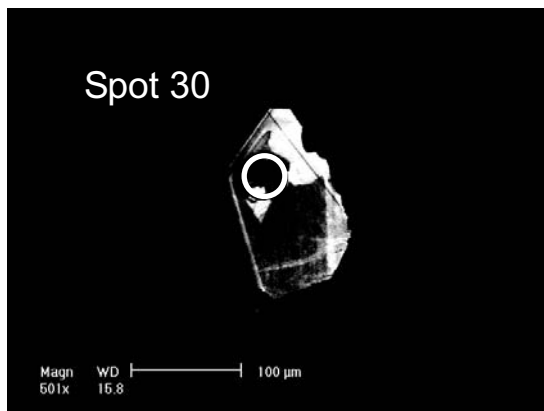
Sample 594 contd.



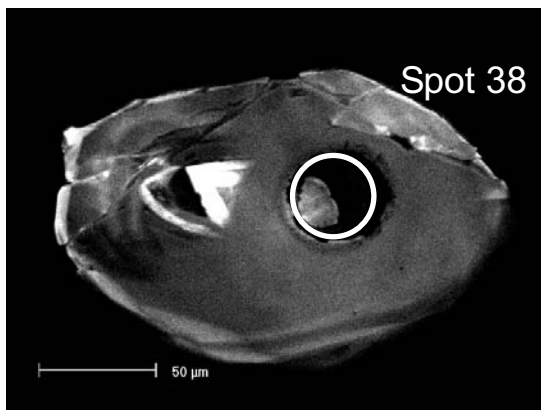
Sample 594 contd.



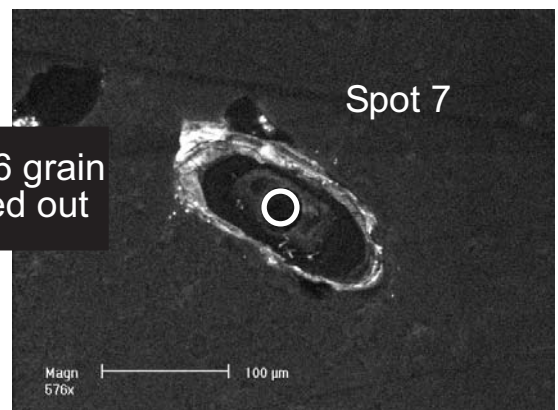
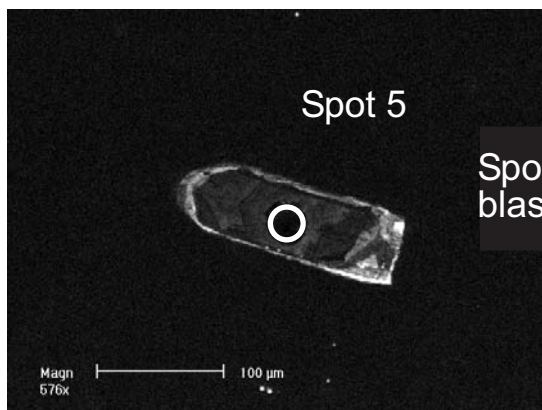
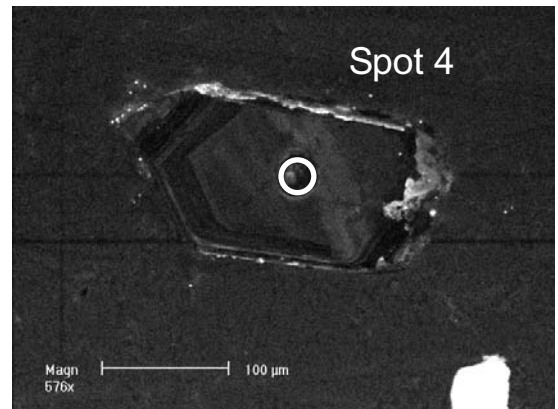
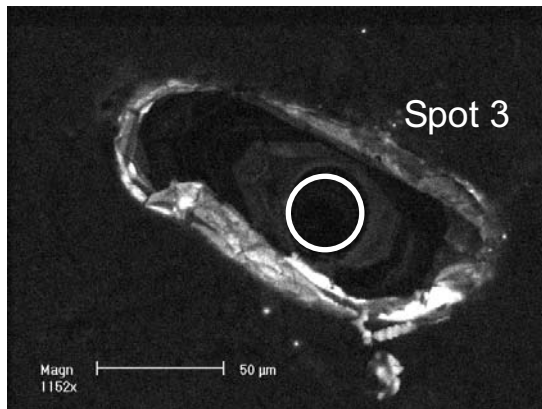
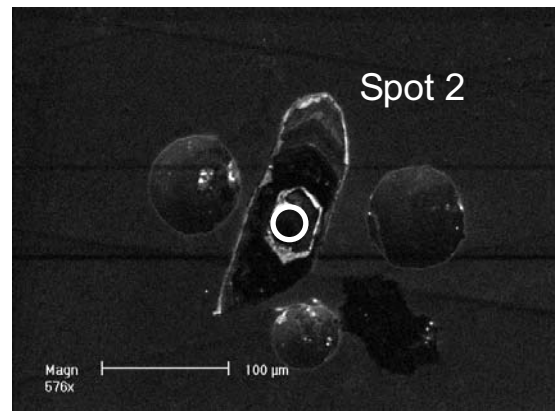
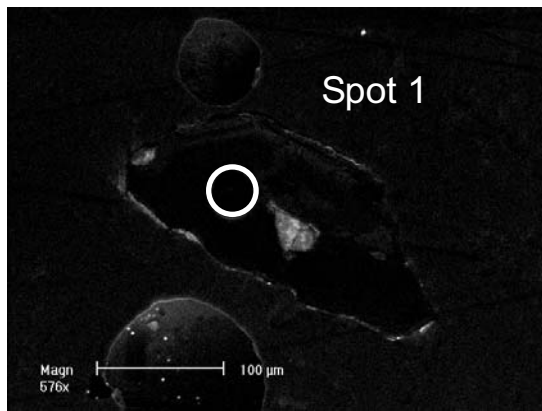
Sample 594 contd.



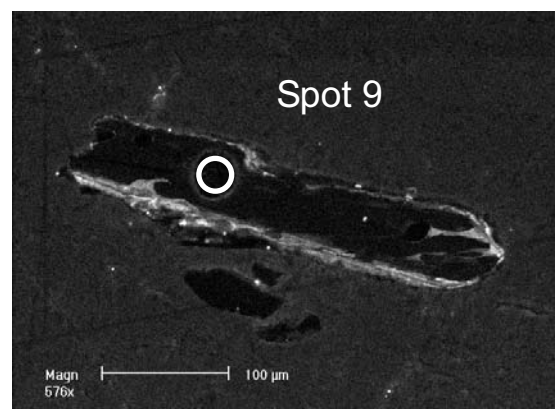
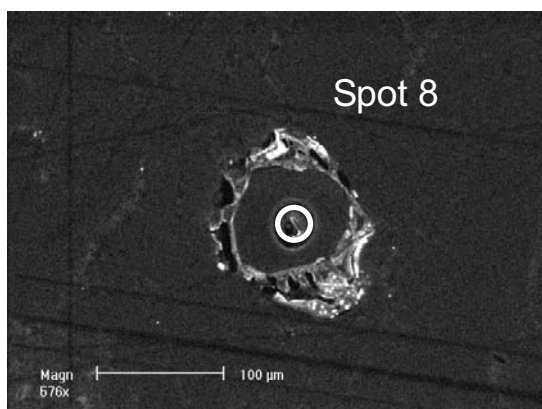
Sample 594 contd.



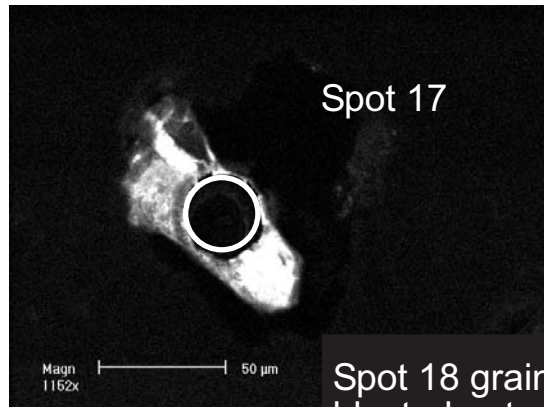
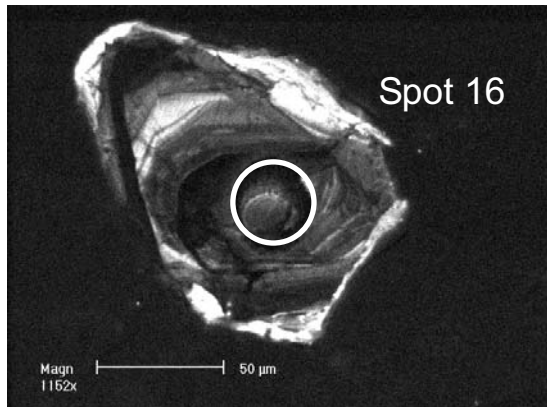
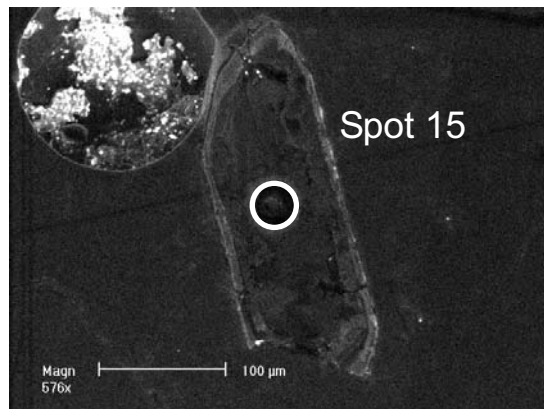
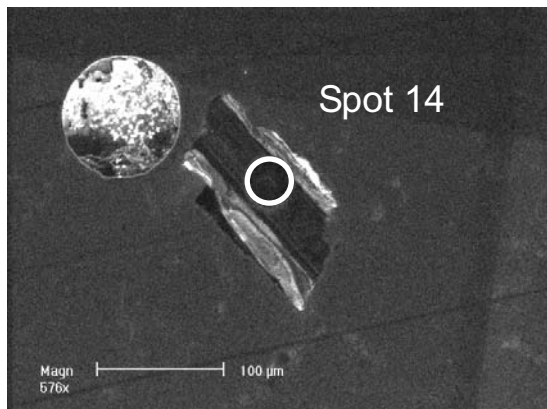
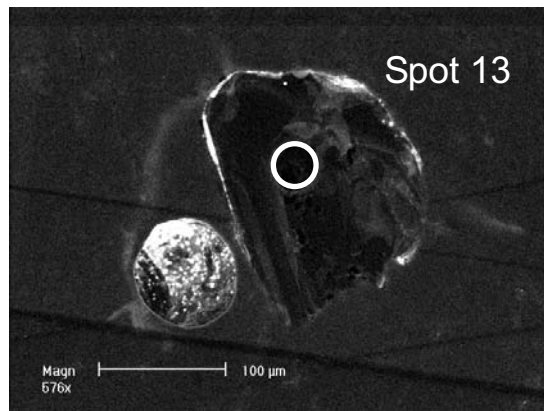
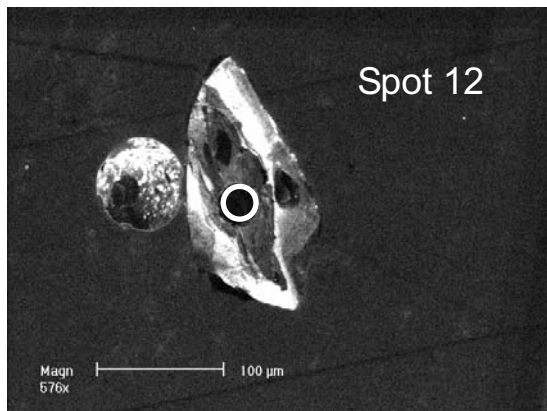
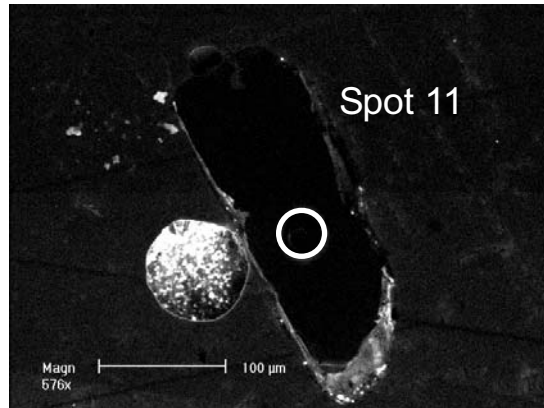
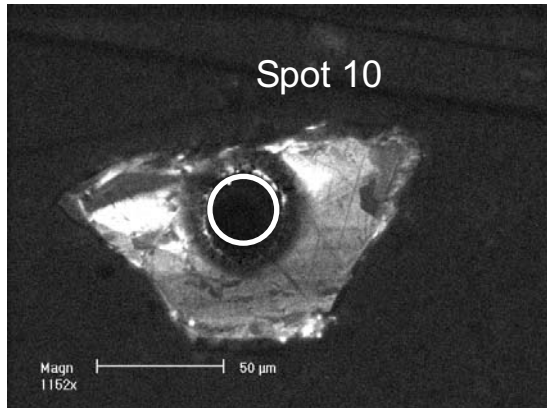
Sample 525



Spot 6 grain
blasted out

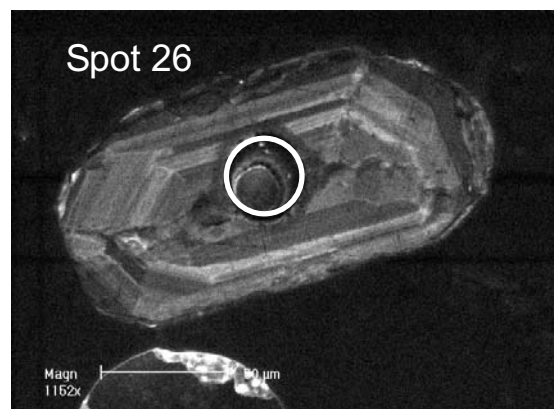
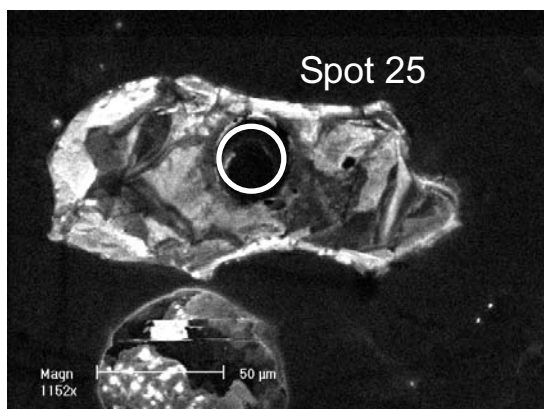
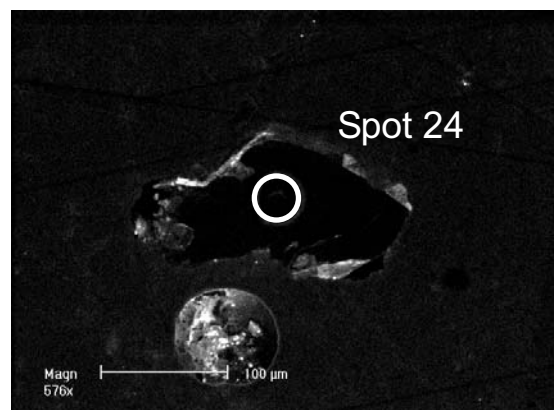
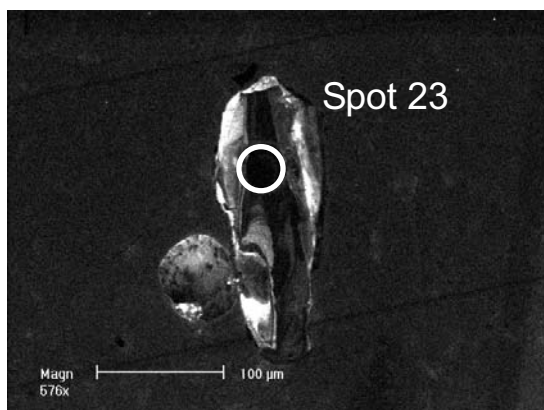
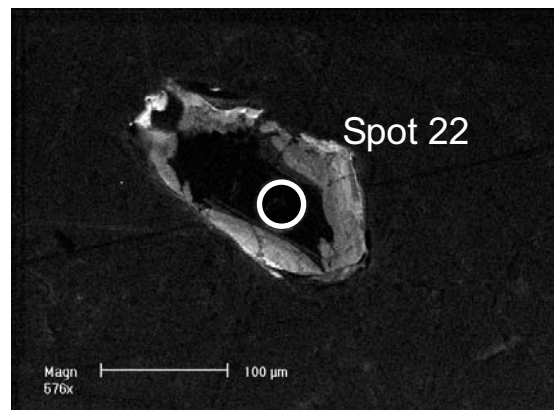
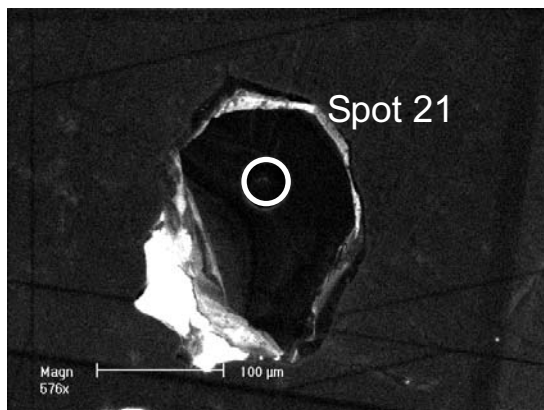
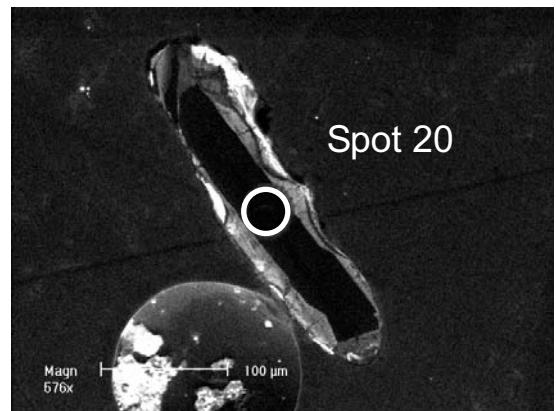
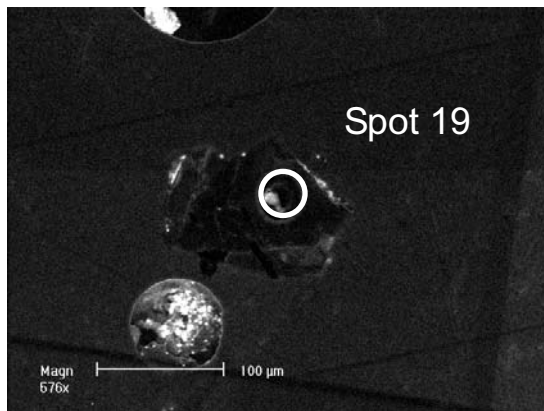


Sample 525 contd.

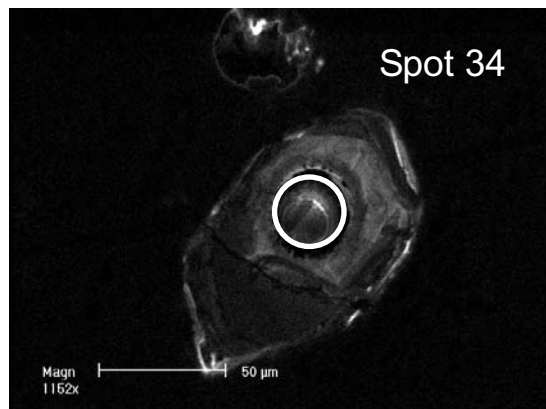
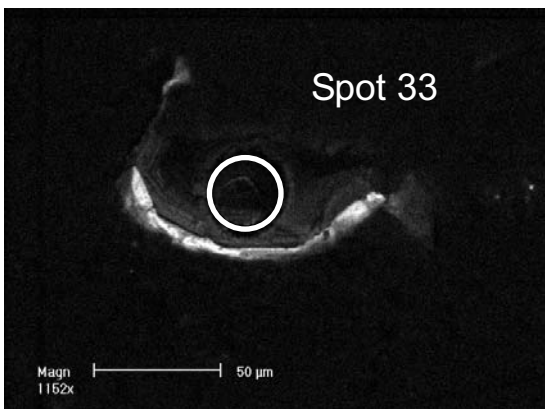
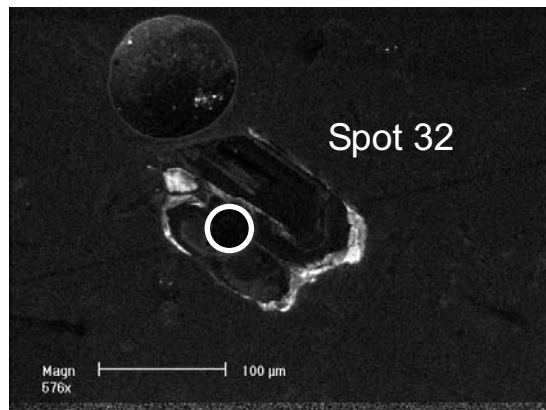
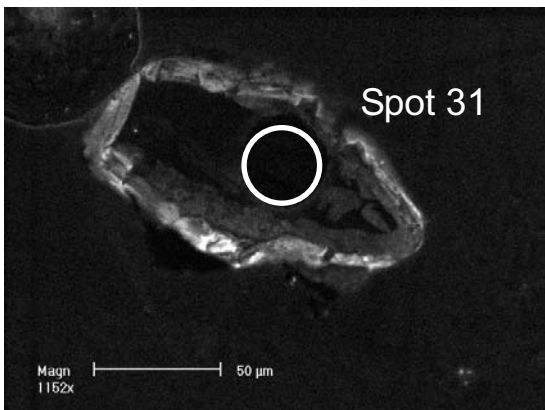
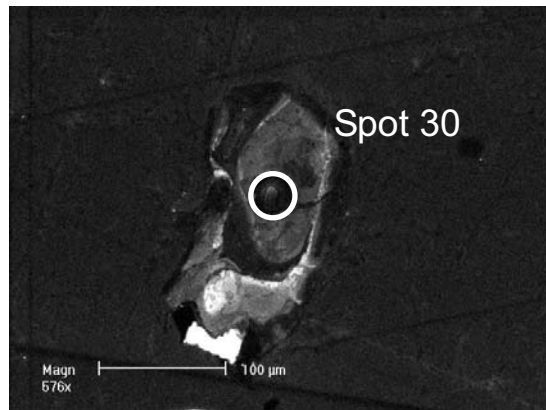
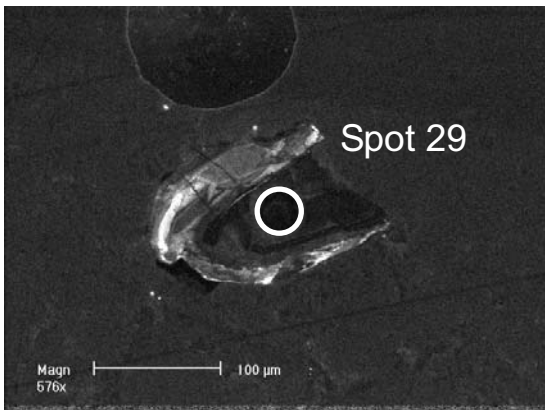
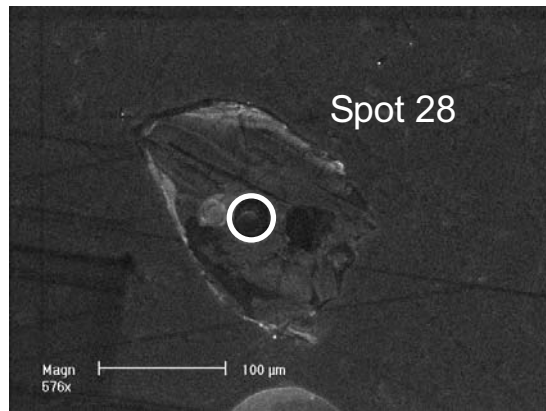
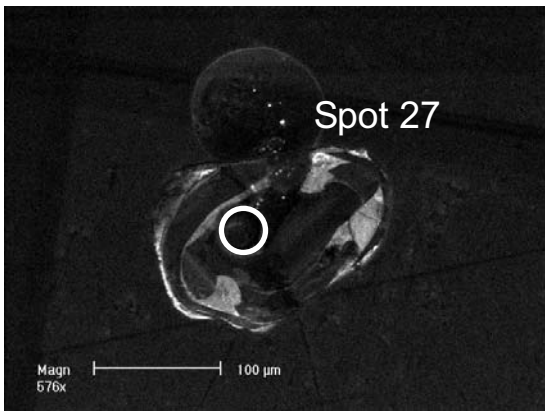


Spot 18 grain
blasted out

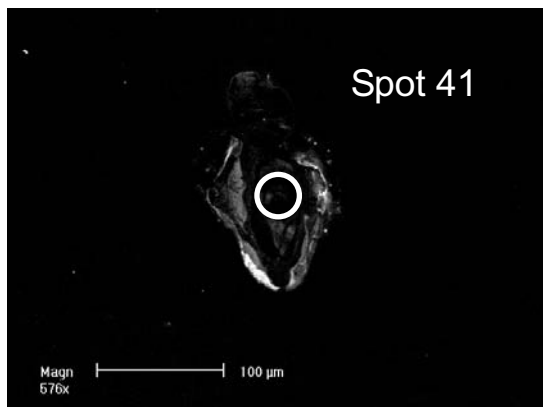
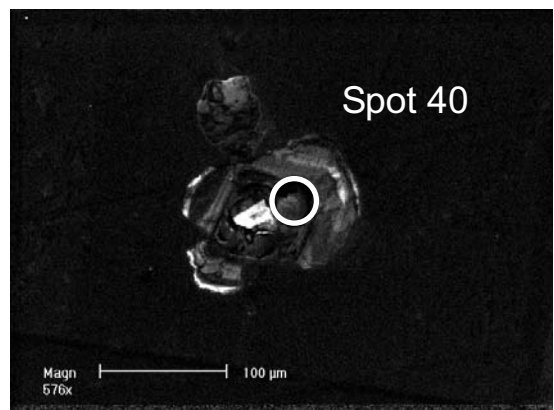
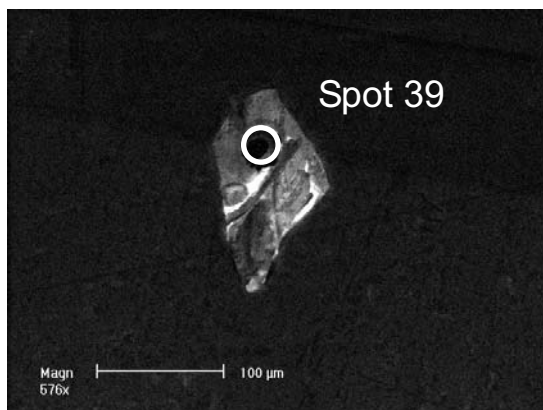
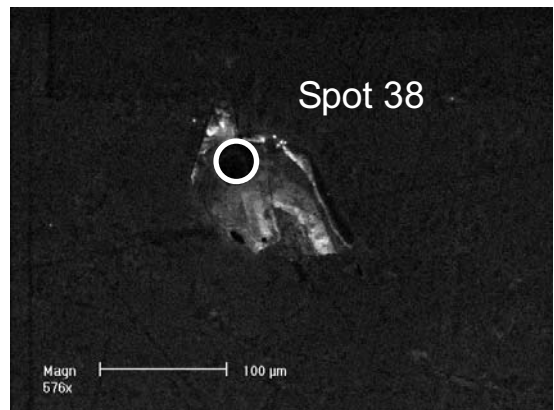
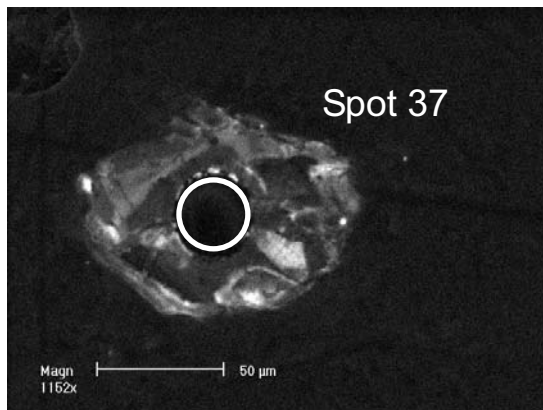
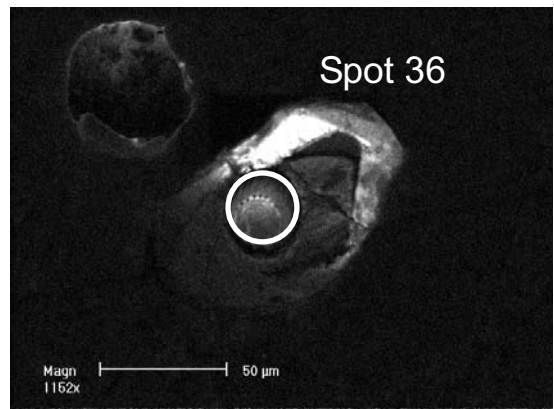
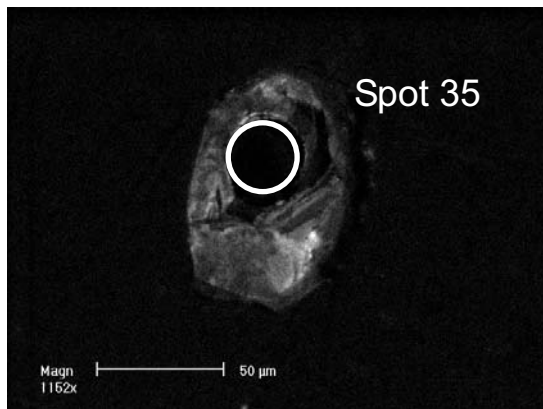
Sample 525 contd.



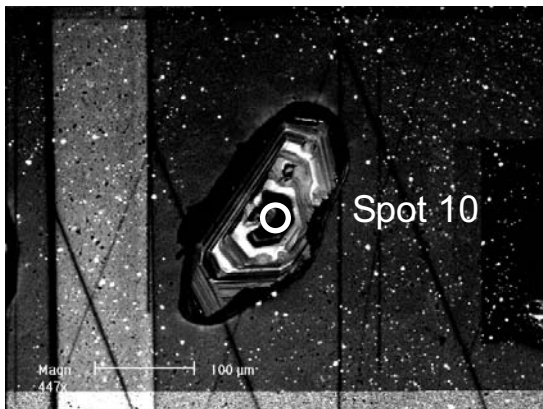
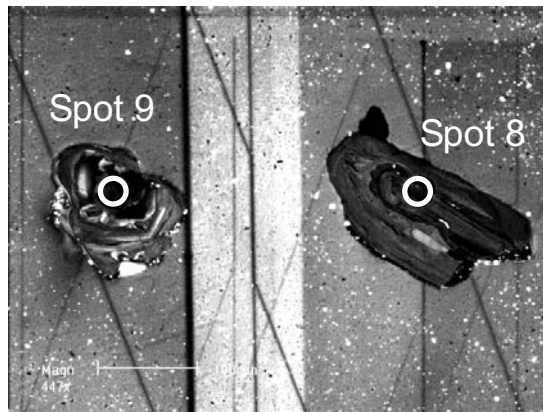
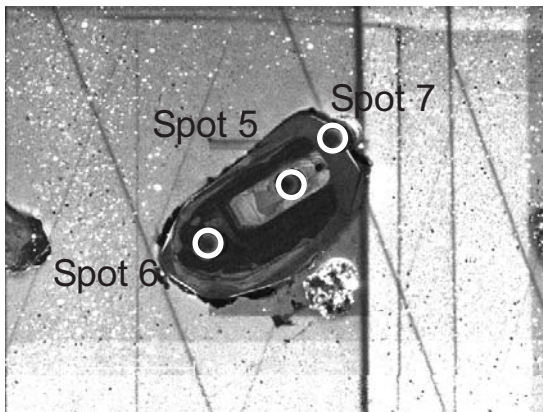
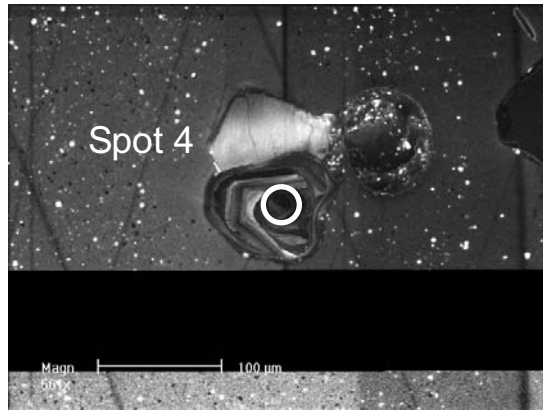
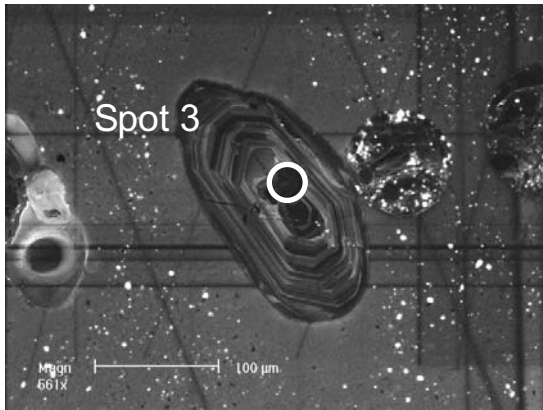
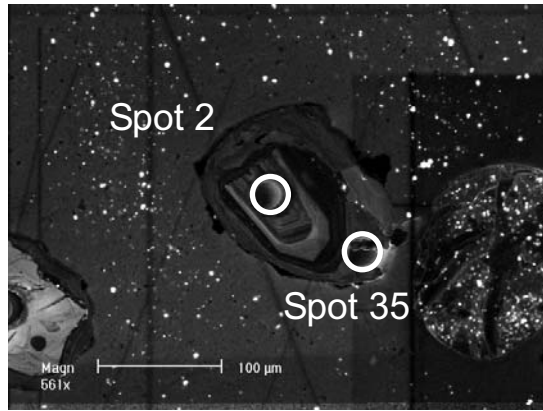
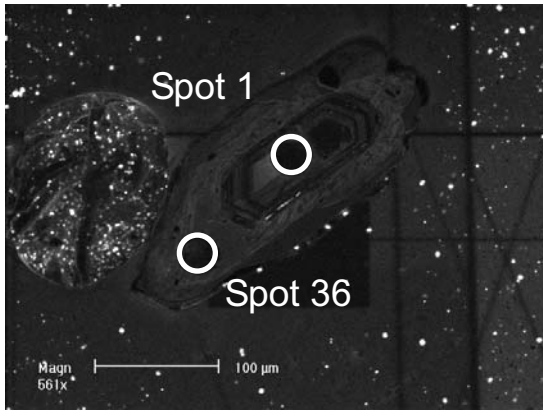
Sample 525 contd.



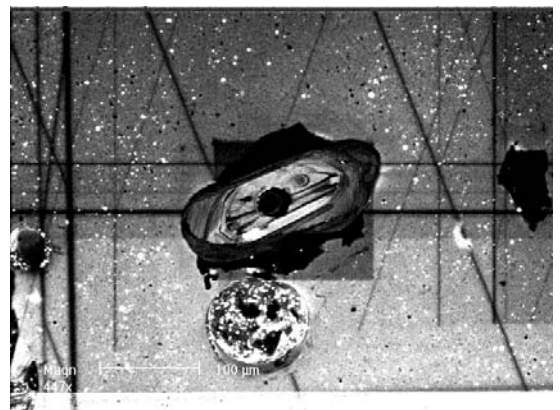
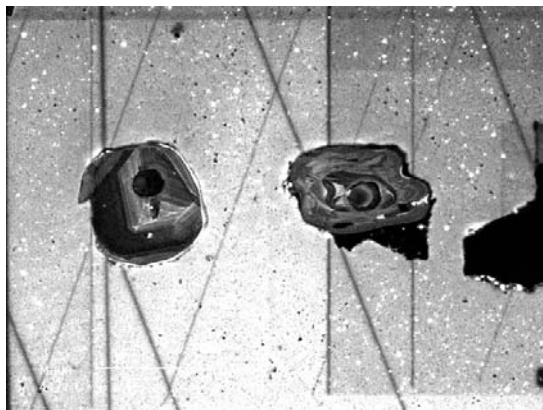
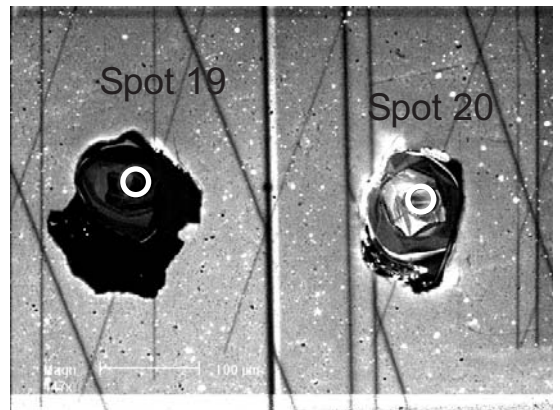
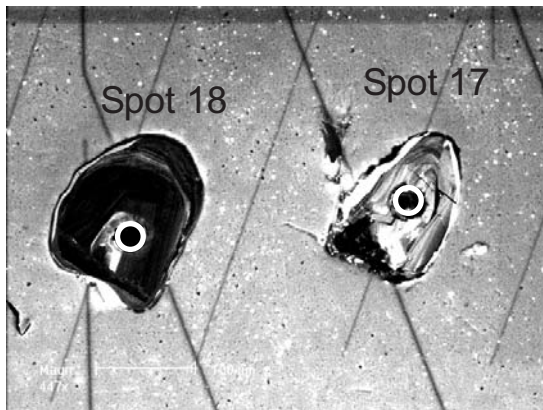
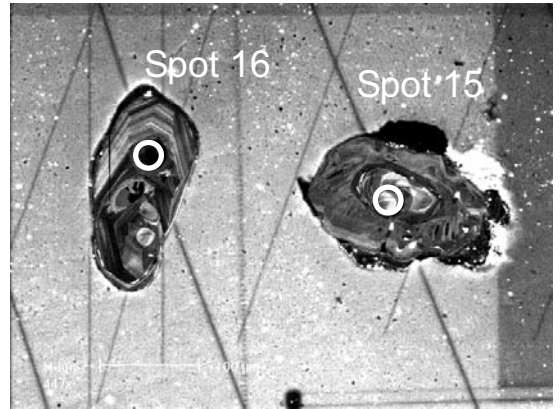
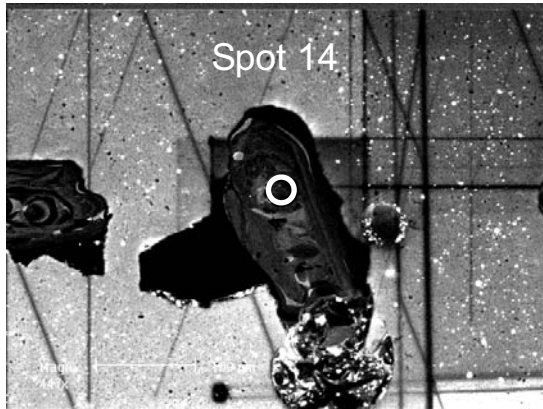
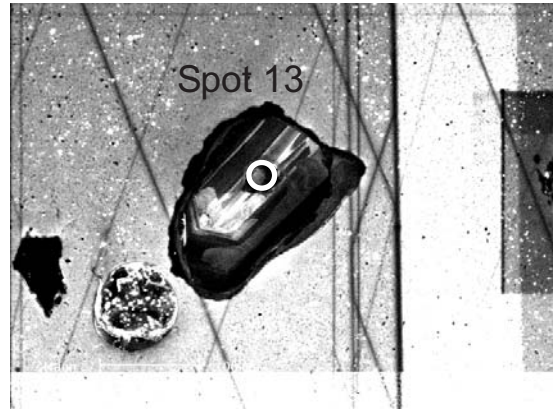
Sample 525 contd.



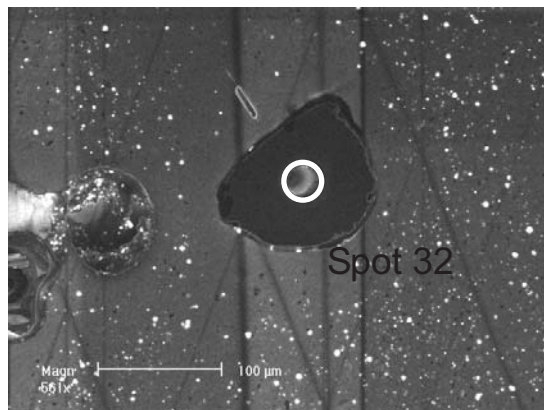
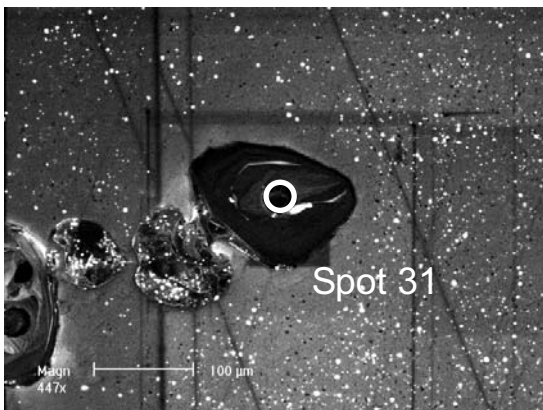
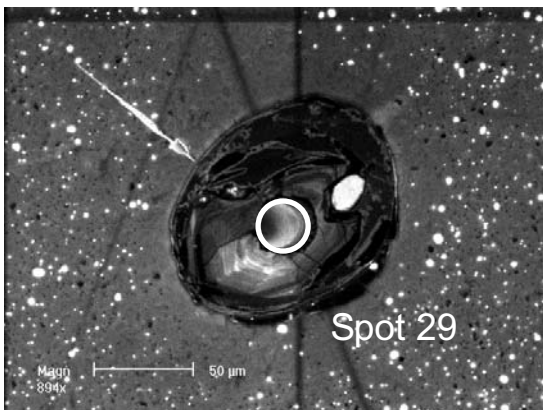
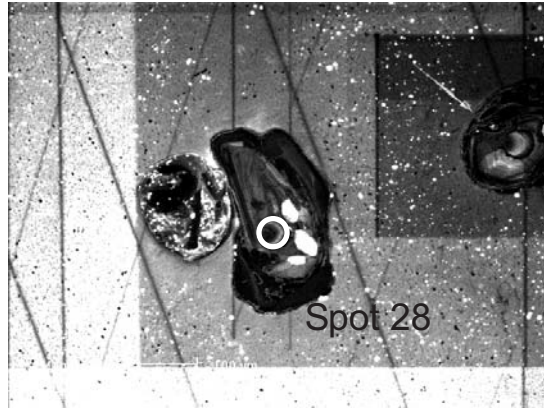
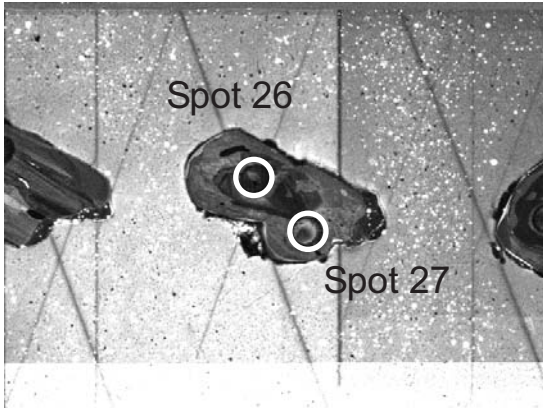
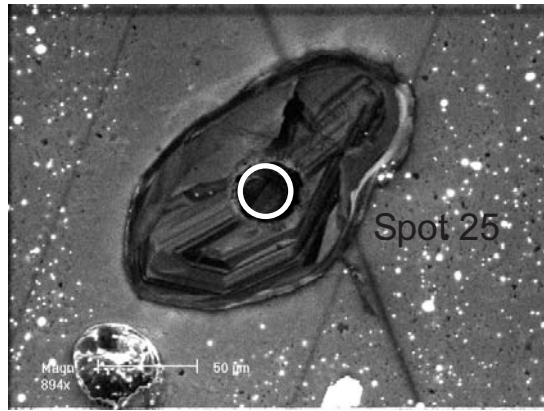
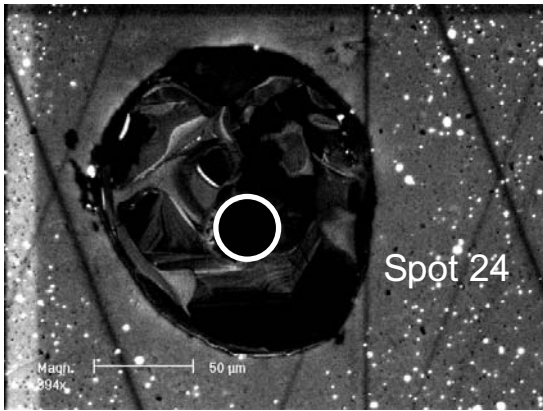
Sample 476



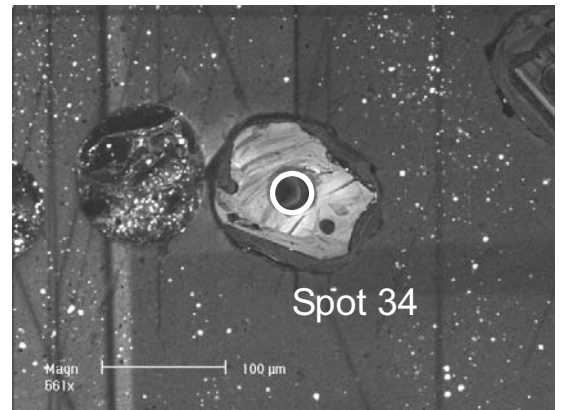
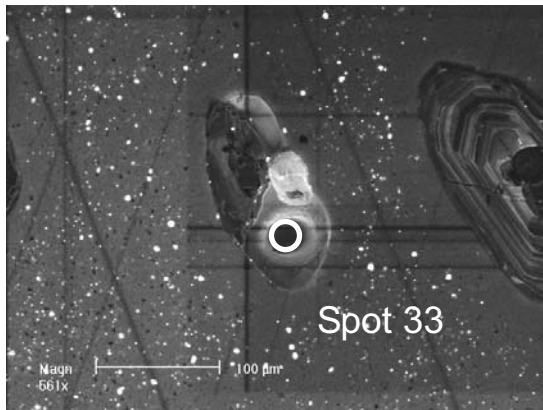
Sample 476 contd.



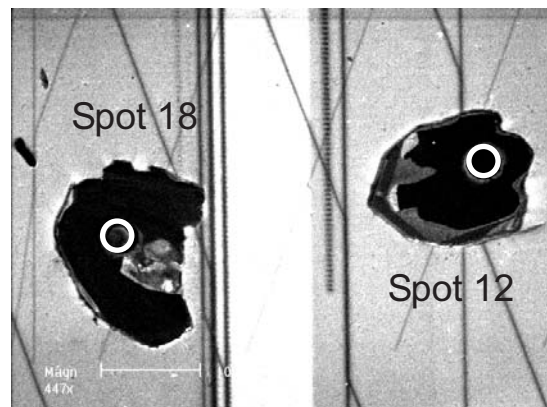
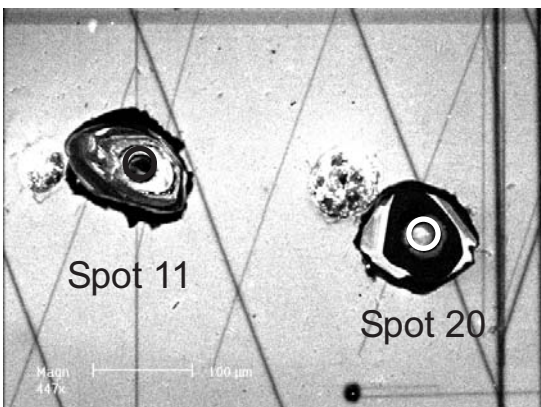
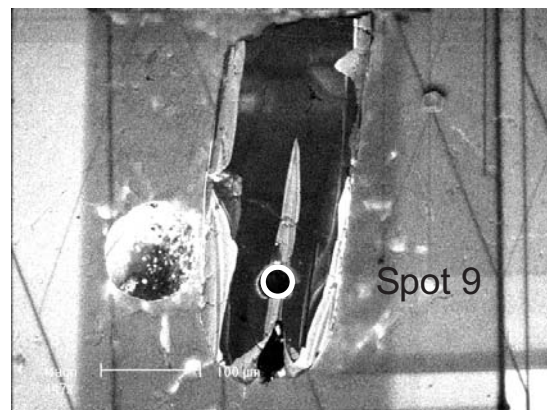
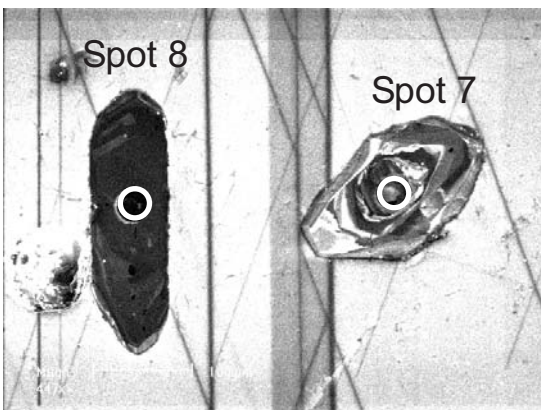
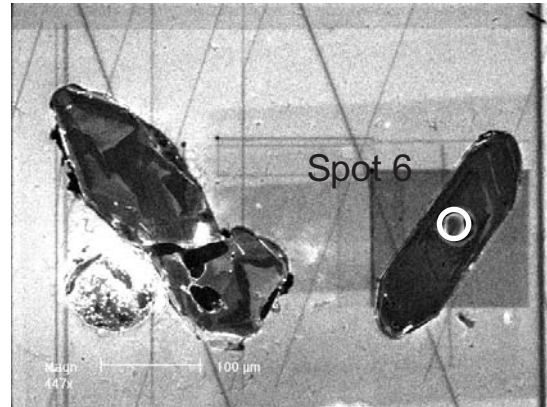
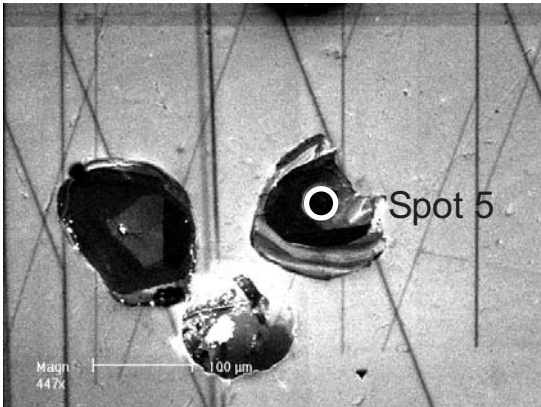
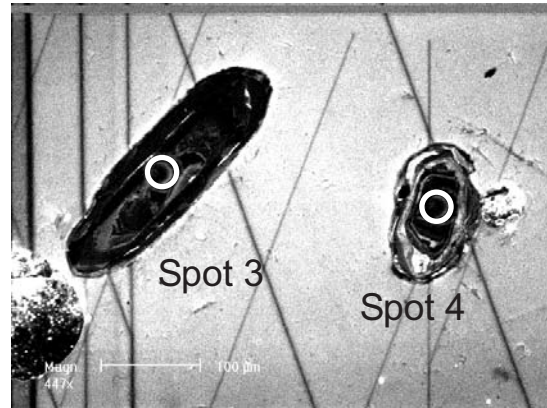
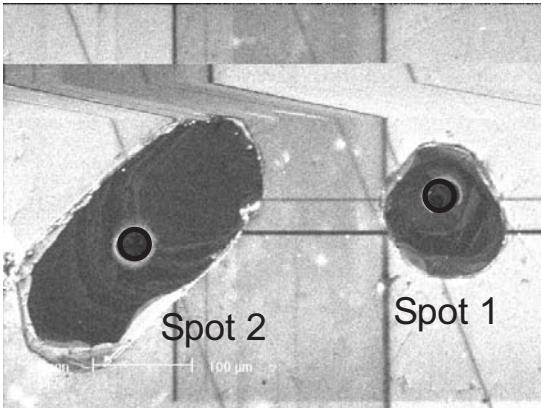
Sample 476 contd.



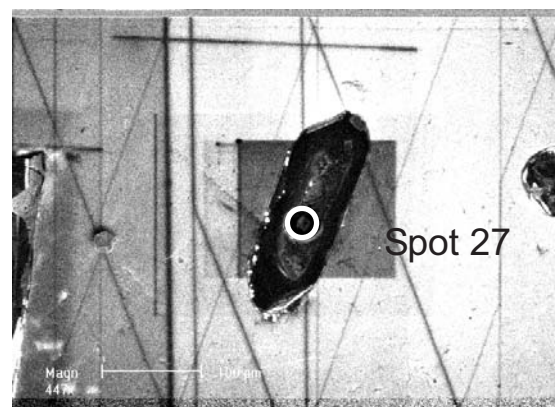
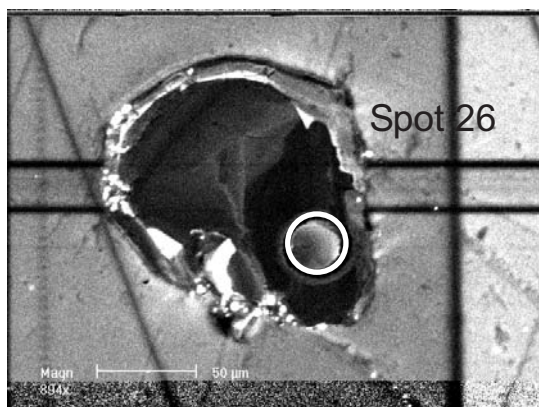
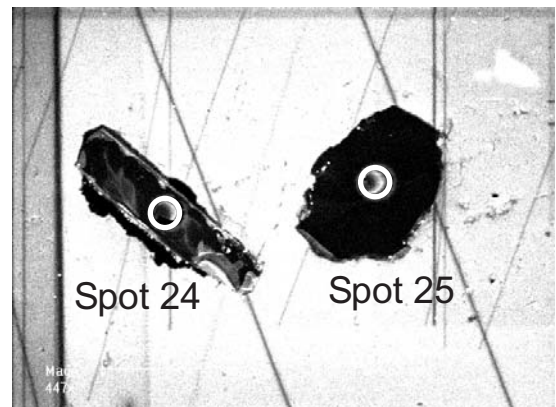
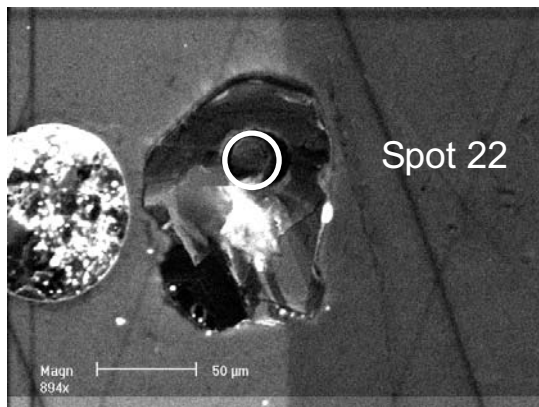
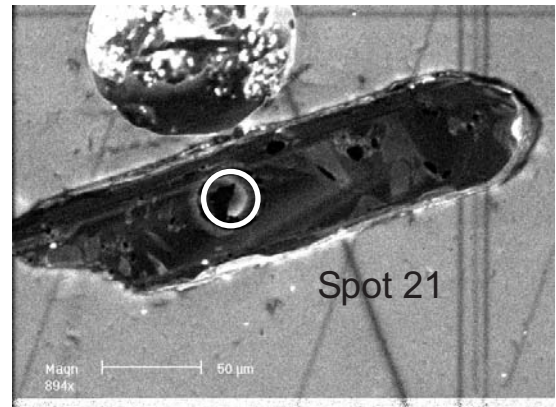
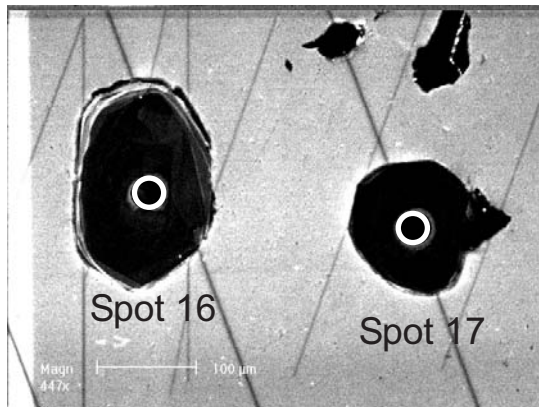
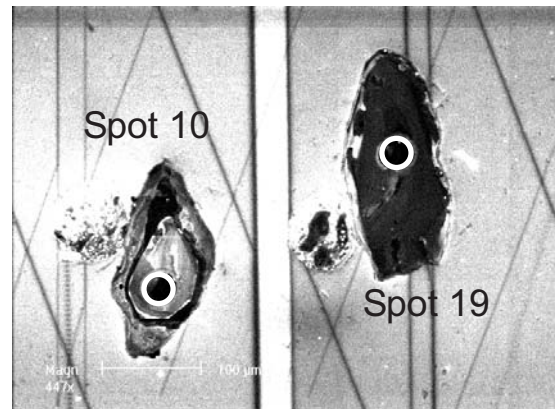
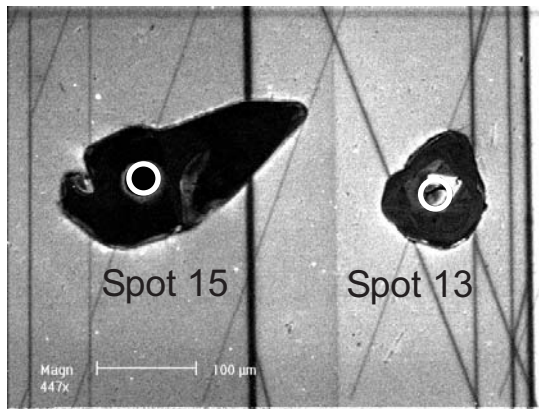
Sample 476 contd.



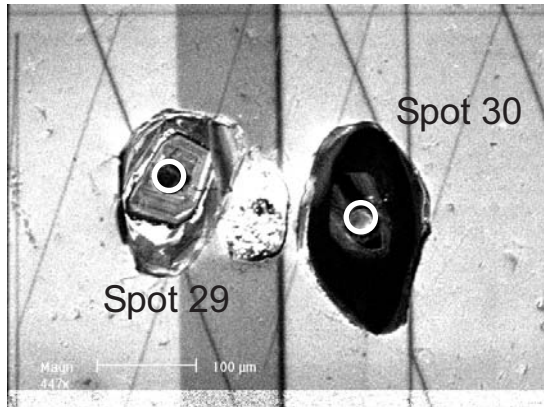
Sample 529



Sample 529 contd.



Sample 529 contd.



Grains 14, 23 and 28 blown out