Appendix 1a: Sample Data- Regional hand specimens

Table 1: Kibali Granite-Greenstone Belt samples

Sample No	E (WGS84)	N (WGS84)	Elev (m)	Preliminary Description
K02	783225	359728	830	Granite
K03	784122	359147	858	Granite
K04	785286	359352	866	Granite
K05	785286	359352	865	Metasediment
K06	783439	358506	883	Ironstone
K07	784255	358231	846	Basalt
K08	784255	358231	846	Granite
KK01	786185	345565	1014	Ironstone
KK02	786205	345565	1010	Ironstone
M01	783027	351204	848	Ironstone
MK01	783796	356122	850	Granite
ANZI1	777151	3622289	760	Metasediment
ASAKA1	776304	362344	824	Metasediment
OERE1	779799	356733	777	Metasediment
KOK1	782742	347539	793	Silicified metasediment
KOK2	782742	347539	793	Silicified metasediment
KOK3	781011	346027	835	Dolerite
KOK5	780453	345482	788	Gabbro
KOK6	780442	345126	787	Sillicified Metasediment
KOK7	781381	345111	811	Gabbro
K18	783416	356162	825	Metasediment
K19	783416	356162	825	Metasediment
MAK1	821381	347517	970	Dolerite
MAK2	815716	352602	1012	Meta-quartzite
AMB1	805074	349890	921	Granodiorite
AT1	799327	344064	900	Basalt
AT2	799129	344207	855	Basalt
AT3	798986	344319	875	Gabbro
AT4	797648	345289	902	Granodiorite
AT5	796899	345227	919	Basalt
KS1	785599	343023	808	Metasediment
KS2	787081	342019	807	Basalt
64_13	352940	777863	767	Metasediment
48_7	362731	787668	817	Basalt
82_22	338901	782566	928	Dolerite
116_29	349102	828078	883	Biotite-schist
116-28	349102	828078	883	Biotite-schist
109-23	339825	824966	964	Dacite
MK02	783796	356122	850	Granite
H 1	826343	364833	878	Granite
H 2	804141	356860	882	Granite

Table 2: Upper Congo Granitic Massif Samples

Sample No	E(WGS84)	N(WGS84)	Elev (m)	Preliminary Description	Sub Group
WD01	784436	335367	951	Feldspathoid	Watsa-A
WD02	784544	335183	944	Feldspathoid	Watsa-A
WD03	784852	335405	932	Feldspathoid	Watsa-A
WD04	782741	332212	976	Feldspathoid	Watsa-A
WP01	784078	335151	973	Feldspathoid	Watsa-A
WP02	784145	335107	976	Feldspathoid	Watsa-A
WP03	784240	335154	962	Feldspathoid	Watsa-A
WP04	783790	335863	907	Granodiorite	Watsa-B
WP05	783699	336102	908	Granodiorite	Watsa-B
WP06	783010	336302	964	Granodiorite	Watsa-B
WP07	785434	327527	999	Granodiorite	Watsa-D
WP08	784922	328173	994	Granodiorite	Watsa-D
WP09	784462	328836	1000	Granodiorite	Watsa-D
W1	782539	338349	977	Micro-Diorite	Watsa-C
W2	782539	336486	1012	Granodiorite	Watsa-B
W3	786744	335751	964	Granodiorite	Watsa-A
W4	786877	335969	997	Granodiorite	Watsa-A
W5	784471	334991	946	Granodiorite	Watsa-A
W6	784080	333993	992	Granodiorite	Watsa-A
W7	785215	333465	996	Granodiorite	Watsa-A
W8	786788	332270	960	Granodiorite	Watsa-B
W9	788010	331164	943	Granite dyke	Watsa-D
W10	788010	331164	943	Granodiorite	Watsa-D
W11	788010	331164	943	Granite	Watsa-D
W12	790107	339598	841	Granodiorite	Watsa-B
W13	790051	339429	878	Diorite	Watsa-B
W14	790043	340343.6	801.4	Granodiorite	Watsa-B
W15	780494	336582	1071	Granodiorite	Watsa-C
W16	779932	336629	938	Basalt	
W17	779983	336631	934	Basalt	
W18	781311	335922	985	Granodiorite	Watsa-B
W19	783200	337617	1000	Granodiorite	Watsa-B
W20	783200	337617	1000	Micro-Diorite	Watsa-B
W21	782181	337847	1084	Micro-Diorite	Watsa-C
H 3	820957	335728	1123	Granite	Boundary intrusions
H 4	811635	336955	-	Granite	Boundary intrusions

Table 3: West Nile Gneiss Samples

Sample No	E(WGS84)	N(WGS84)	Elev (m)	Preliminary Description
NZ01	777531	368679	802	Granite-Gneiss
NZ02	777554	368691	801	Granite-Gneiss
NZ03	777075	368426	797	Granite-Gneiss
NZ04	778810	365874	784	Granite-Gneiss
NZ06	778762	365946	798	Granite-Gneiss
NZ07	777464	368631	793	Granite-Gneiss

Appendix 1b: Sample Data- Core Samples

Table 1: Core samples-Karagba-Chaffeur-Durba deposit

Sample No	Core ID	Depth start (m)	Depth end (m)	Thickness (m)	Grade (g/t)
PB12-D01	DGT003	502.92	503.04	0.12	42.04
PB12-D02	DGT003	517.35	517.5	0.15	4.17
PB12-D03	DGT003	523.85	524	0.15	8.98
PB12-D04	DGT003	548.025	548.15	0.125	0.3
PB12-D05	DDD466	519.85	520	0.15	26.9
PB12-D06	DDD466	539.19	539.32	0.13	0.17
PB12-D07	DDD466	545.84	546.01	0.17	2.4
PB12-D08	DDD466	552.79	552.89	0.1	5.1
PB12-D09	DDD466	588.98	589.1	0.12	50
PB12-D10	DGT004	168.83	169	0.17	27.74
PB12-D11	DGT004	229.25	229.38	0.13	3.29
PB12-D12	DGT004	522.78	522.91	0.13	12.55
2013-D1	DDD542	267.73	267.88	0.15	10.1
2013-D2	DDD542	274.33	274.48	0.15	5.2
2013-D3	DDD542	259.26	259.41	0.15	0.5
2013-D4	DDD542	280.36	280.5	0.14	0.42
2013-D5	DDD542	289.93	290.7	0.77	5.4
2013-D6	DDD542	219.78	219.98	0.2	0.18
2013-D7	DDD542	343.16	343.29	0.13	0.01
2013-D8	DDD542	361.52	361.69	0.17	9.9
2013-D9	DDD542	375.46	375.61	0.15	0.01
2013-D10	DDD542	171	171.17	0.17	0.09
2013-D11	DDD503A	121.22	121.37	0.15	0.005
2013-D12	DDD503A	311.82	311.94	0.12	0.02
2013-D13	DDD503A	313.53	313.72	0.19	0.04
2013-D14	DDD503A	364.24	364.4	0.16	11.1
2013-D15	DDD503A	388.19	388.35	0.16	0.005
2013-D16	DDD503A	507.63	507.78	0.15	0.005
2013-D17	DDD503A	356.865	357	0.135	1.51
2013-D18	DDD503A	308.98	309.15	0.17	0.005
2013-D19	DDD503A	340.41	340.56	0.15	0.03
2013-D20	DDD503A	349.25	349.42	0.17	1.71
2013-D21	DDD503A	351.14	351.3	0.16	1.05
2013-D22	DDD503A	364.4	364.56	0.16	11.1
2013-D23	DDD503A	379.36	379.62	0.26	0.005
2013-D24	DDD503A	290.4	290.56	0.16	5.4
2013-D25	DDD542	274.05	274.18	0.13	5.2
2013-D26	DDD333	221.6	221.7	0.1	88.4
2013-D27	DDD333	238.16	238.3	0.14	0.09
2013-D28	DDD333	238.44	238.58	0.14	0.09
2013-D29	DDD333	239.72	239.86	0.14	
2013-D30	DDD333	246.58	246.73	0.15	0.09
2013-D31	DDD333	248.08	248.27	0.19	0.16
2013-D32	DDD333	251.33	251.45	0.12	
2013-D33	DDD333	294.44	294.56	0.12	0.29
2013-D34	DDD333	294.7	294.93	0.23	
2013-D35	DDD333	296.85	296.95	0.1	16.1
2013-D36	DDD333	312.8	313	0.2	
2013-D37	DDD333	315.38	315.51	0.13	
2013-D38	DDD333	324.6	324.72	0.12	14.08
2013-D39	DDD333	329.9	321.17	-8.73	8.74
2013-D40	DDD333	342	342.13	0.13	2.66
2013-D41	DDD333	352.42	352.55	0.13	1.16
2013-D42	DDD333	353.42	353.55	0.13	1.16
2013-D43	DDD333	357.49	357.63	0.14	0.39
2013-D44	DDD333	358.43	358.6	0.17	3.14

Table 1: Core samples-Karagba-Chaffeur-Durba deposit; Continued

Sample No	Core ID	Depth start (m)	Depth end (m)	Thickness (m)	Grade (g/t)
2013-D45	DDD333	359.47	359.64	0.17	3.14
2013-D46	DDD333	373.66	373.81	0.15	0.28
2013-D47	DDD423	111.12	111.3	0.18	0.03
2013-D48	DDD423	118.7	118.84	0.14	0.31
2013-D49	DDD423	119.56	119.69	0.13	0.03
2013-D50	DDD423	120.95	121.11	0.16	56.5
2013-D51	DDD423	123.86	124.01	0.15	0.03
2013-D52	DDD423	141.54	141.7	0.16	0.06
2013-D53	DDD423	142.15	142.27	0.12	0.06
2013-D54	DDD423	144.74	144.91	0.17	0.64
2013-D55	DDD423	146.11	146.25	0.14	
2013-D56	DDD423	147.92	148.05	0.13	6.05
2013-D57	DDD423	155.1	155.24	0.14	25.42
2013-D58	DDD423	163.1	163.24	0.14	24.87
2013-D59	DDD423	163.51	163.72	0.21	24.87
2013-D60	DDD423	171.35	171.48	0.13	3.28
2013-D61	DDD423	178.15	178.3	0.15	0.02
2013-D62	DDD464	111.33	111.48	0.15	0.005
2013-D63	DDD464	115.68	115.81	0.13	
2013-D64	DDD464	129.53	129.65	0.12	0.005
2013-D65	DDD464	137.66	137.79	0.13	0.005
2013-D66	DDD464	149.94	150.08	0.14	0.005
2013-D67	DDD464	153.86	154.04	0.18	
2013-D68	DDD464	155.3	155.5	0.2	0.11
2013-D69	DDD464	156.41	156.56	0.15	0.11
2013-D70	DDD464	156.75	156.91	0.16	
2013-D71	DDD464	161.14	161.28	0.14	
2013-D72	DDD464	170.29	170.45	0.16	0.91
2013-D73	DDD464	182.32	182.47	0.15	0.006
2013-D74	DDD464	182.94	183.06	0.12	0.07
2013-D75	DDD464	195.25	195.38	0.13	0.22
2013-D76	DDD464	207.23	207.35	0.12	0.005
2013-D77	DDD464	215.12	215.28	0.16	
2013-D78	DDD464	219.35	219.48	0.13	0.05
2013-D79	DDD464	222.11	222.23	0.12	1.29
2013-D80	DDD464	224.64	224.75	0.11	0.01
2013-D81	DDD464	225.91	226.02	0.11	0.005
2013-D82	DDD464	324.64	324.79	0.15	0.01
2013-D83	DDD464	344.43	344.57	0.14	0.005
2013-D84	DDD464	354.62	354.81	0.19	0.005
2013-D85	DDD464	388.11	388.22	0.11	0.21
2013-D86	DDD464	411.4	411.55	0.15	0.08
2013-D87	DDD464	412.26	412.42	0.16	0.08
2013-D88	DDD464	416.24	416.36	0.12	u
2013-D89	DDD464	417	417.14	0.14	u
2013-D90	DDD464	417.5	417.64	0.14	u
2013-D91	DDD464	418.57	418.74	0.17	2.04
2013-D92	DDD464	419.62	419.72	0.1	2.65
2013-D93	DDD464	420.46	420.6	0.14	2.65
2013-D94	DDD464	428.31	428.45	0.14	0.02
2013-D95	DDD464	433.57	433.75	0.18	0.06
2013-D96	DDD464	446.98	447.06	0.08	27.7
2013-D97	DDD464	447.2	447.3	0.1	27.7
2013-D98	DDD464	448.2	448.32	0.12	27.7
2013-D99	DDD464	452	452.15	0.15	7.4
2013-D100	DDD464	456.18	456.33	0.15	u

Table 1: Core samples-Karagba-Chaffeur-Durba deposit; Continued

Sample No	Core ID	Depth start (m)	Depth end (m)	Thickness (m)	Grade (g/t)
2013-D101	DDD464	457.74	457.97	0.23	u
2013-D102	DDD464	458.08	458.23	0.15	8.2
2013-D103	DDD464	460.37	460.64	0.27	0.22
2013-D104	DDD464	461.7	461.86	0.16	0.22
2013-D105	DDD464	479.64	479.74	0.1	0.37
2013-D106	DDD464	486.67	486.85	0.18	0.55
2013-D107	DDD464	489.29	489.42	0.13	10
2013-D108	DDD464	498.12	498.26	0.14	0.31
2013-D109	DDD464	500.05	500.18	0.13	1.84
2013-D110	DDD464	504.2	504.3	0.1	4.68
2013-D111	DDD464	504.66	504.83	0.17	4.68
2013-D112	DDD464	507.69	507.84	0.15	0.98
2013-D113	DDD464	521.6	521.8	0.2	0.005
2013-D114	DDD464	525.26	525.4	0.14	u
2013-D115	DDD464	372.22	372.35	0.13	0.01

Table 2: Core Samples- Mengu Deposit

Sample No	Core ID	Depth start (m)	Depth end (m)	Thickness (m)	Grade (g/t)
PB12-M02	MDD036	168.52	168.71	0.19	5.99
PB12-M03	MDD036	176.5	176.62	0.12	3.75
PB12-M04	MDD036	185.96	186.12	0.16	6.78
PB12-M05	MDD036	189.07	189.25	0.18	0.11
PB12-M06	MDD036	202.67	202.82	0.15	15.86
PB12-M07	MDD036	209.9	210.05	0.15	6.86
PB12-M08	MDD036	211.59	211.77	0.18	0.13
PB12-M09	MDD036	219.15	219.3	0.15	7.71
PB12-M10	MDD036	243.81	244	0.19	0.11
PB12-M11	MDD028	30.25	30.4	0.15	0.2
PB12-M12	MDD028	105.51	105.66	0.15	0.06
PB12-M13	MDD036	169.15	169.3	0.15	0.46
PB12-M13	MDD048	180.15	180.38	0.23	
PB12-M14	MDD048	197.5	197.71	0.21	
PB12-M15	MDD048	219.54	219.72	0.18	
PB12-M16	MDD043a	236.4	236.56	0.16	7.25
PB12-M17	MDD043a	247.85	247.99	0.14	4.87
PB12-M18	MDD043a	257.6	257.73	0.13	8.91
2013-M1	MDD019	52.42	52.64	0.22	0.37
2013-M2	MDD019	55.45	55.68	0.23	0.13
2013-M3	MDD019	56.36	56.45	0.09	4.17
2013-M4	MDD019	57.6	57.85	0.25	4.17
2013-M5	MDD019	58.85	59.02	0.17	
2013-M6	MDD019	59.51	59.63	0.12	
2013-M7	MDD019	62.72	63.06	0.34	0.06
2013-M8	MDD019	66.21	66.46	0.25	0.005
2013-M9	MDD019	74.28	74.39	0.11	
2013-M10	MDD019	77.06	77.18	0.12	0.005
2013-M11	MDD019	83.68	83.89	0.21	
2013-M12	MDD019	86.38	86.55	0.17	0.005
2013-M13	MDD031	28.25	28.38	0.13	
2013-M14	MDD031	36.24	36.44	0.2	
2013-M15	MDD031	55.6	55.75	0.15	0.27
2013-M16	MDD031	57.42	57.57	0.15	
2013-M17	MDD031	61.62	61.79	0.17	0.02
2013-M18	MDD031	69.7	69.9	0.2	
2013-M19	MDD031	72.57	72.68	0.11	
2013-M20	MDD031	74.3	74.49	0.19	0.04
2013-M21	MDD031	75.2	75.39	0.19	0.04
2013-M22	MDD031	87.34	87.44	0.1	
2013-M23	MDD031	91.64	91.84	0.2	
2013-M24	MDD031	93.84	94.01	0.17	0.12
2013-M25	MDD031	121.28	121.42	0.14	
2013-M26	MDD031	122.34	122.45	0.11	0.13
2013-M27	MDD031	123.52	123.79	0.27	0.13
2013-M28	MDD031	127.71	127.85	0.14	
2013-M29	MDD031	127.03	127.22	0.19	
2013-M30	MDD031	127.32	127.51	0.19	
2013-M31	MDD031	137.3	137.55	0.25	
2013-M32	MDD031	142.89	142.03	-0.86	0.09

Table 3: Core Samples-Pakaka deposit

Sample No	Core ID	Depth start (m)	Depth end (m)	Thickness (m)	Grade (g/t)
PB12-PK01	PDD084	61.52	61.68	0.16	0
PB12-PK02	PDD084	132.46	132.62	0.16	3.18
PB12-PK03	PDD084	144.99	145.2	0.21	4.67
PB12-PK04	PDD084	147.3	147.49	0.19	6
PB12-PK05	PDD084	160.84	161	0.16	0.04
PB12-PK06	PDD100	40.96	41.11	0.15	0
PB12-PK07	PDD100	46.2	46.4	0.2	0
PB12-PK08	PDD100	101.51	101.72	0.21	6.75
PB12-PK09	PDD100	102.07	102.2	0.13	6.75
PB12-PK10	PDD100	111.26	111.41	0.15	8.96
PB12-PK11	PDD100	113.9	114.05	0.15	29.2
PB12-PK12	PDD088	34.33	34.49	0.16	0
PB12-PK13	PDD088	159.55	159.7	0.15	5.27
PB12-PK14	PDD088	167	167.15	0.15	12.16
PB12-PK15	PDD088	192.97	193.12	0.15	0.005
PB12-PK16	PDD145	43.74	43.94	0.2	0.01
PB12-PK17	PDD145	398.49	398.64	0.15	20.1
2013-P1	PDD072	210.55	210.67	0.12	0.005
2013-P2	PDD072	212	212.21	0.21	
2013-P3	PDD072	215.15	215.32	0.17	
2013-P4	PDD072	215.95	216.06	0.11	
2013-P5	PDD072	217.37	217.55	0.18	0.01
2013-P6	PDD072	222.92	223.07	0.15	
2013-P7	PDD072	226.72	226.81	0.09	0.02
2013-P8	PDD072	227.85	228.05	0.2	0.02
2013-P9	PDD072	230.85	230.95	0.1	0.005
2013-P10	PDD072	234.11	234.27	0.16	1.27
2013-P11	PDD072	235.61	235.79	0.18	1.27
2013-P12	PDD072	235.79	235.98	0.19	1.27
2013-P13	PDD072	238.1	236.22	-1.88	15.32
2013-P14	PDD072	239.2	239.32	0.12	1.19
2013-P15	PDD072	239.78	239.9	0.12	1.19
2013-P16	PDD072	266.68	266.84	0.16	0.03
2013-P17	PDD072	87.72	87.88	0.16	
2013-P18	PDD140	324.39	324.56	0.17	0.01
2013-P19	PDD140	330.37	330.54	0.17	
2013-P20	PDD140	331.34	331.5	0.16	
2013-P21	PDD140	332.8	332.93	0.13	0.005
2013-P22	PDD140	339.53	339.71	0.18	0.005
2013-P23	PDD140	342.73	342.89	0.16	
2013-P24	PDD140	345.18	345.36	0.18	2.38
2013-P25	PDD140	343.93	344.08	0.15	
2013-P26	PDD140	350.46	350.65	0.19	0.03
2013-P27	PDD140	182. 37	182.64		
2013-P28	PDD140	368.28	368.51	0.23	0.2
2013-P29	PDD058	79.33	79.53	0.2	0.005
2013-P30	PDD058	87.58	87.79	0.21	0.005
2013-P31	PDD058	112.76	113	0.24	0.005
2013-P32	PDD058	118.15	118.39	0.24	
2013-P33	PDD058	126.19	126.32	0.13	0.005
2013-P34	PDD058	131.47	131.65	0.18	0.01
2013-P35	PDD058	140.75	140.89	0.14	0.005
2013-P36	PDD058	154.19	154.32	0.13	0.005
2013-P37	PDD058	159.04	159.28	0.24	0.003
2013-P38	PDD058	166.44	166.7	0.26	0.04
2013-P39	PDD058	169.28	169.41	0.13	0.005

Table 3: Core Samples-Pakaka deposit; Continued

Sample No	Core ID	Depth start (m)	Depth end (m)	Thickness (m)	Grade (g/t)
2013-P40	PDD058	169.7	169.91	0.21	6.79
2013-P41	PDD058	170.41	170.59	0.18	6.79
2013-P42	PDD058	170.9	171.04	0.14	6.79
2013-P43	PDD058	171.4	171.57	0.17	6.79
2013-P44	PDD058	171.88	171.99	0.11	6.79
2013-P45	PDD058	174.94	175.06	0.12	1.12
2013-P46	PDD058	176.41	176.64	0.23	1.52
2013-P47	PDD058	185.73	185.96	0.23	0.02
2013-P48	PDD058	187.12	187.33	0.21	0.02
2013-P49	PDD058	193.37	193.53	0.16	0.06
2013-P50	PDD058	197.51	197.65	0.14	
2013-P51	PDD058	200.42	200.63	0.21	
2013-P52	PDD096	58.17	58.31	0.14	
2013-P53	PDD096	62.96	63.12	0.16	
2013-P54	PDD096	76.23	76.37	0.14	
2013-P55	PDD096	89.67	89.87	0.2	
2013-P56	PDD096	96.24	96.43	0.19	
2013-P57	PDD096	106.79	106.9	0.11	0.04
2013-P58	PDD096	100.03	100.13	0.1	
2013-P59	PDD096	108	108.18	0.18	0.02
2013-P60	PDD096	136.1	136.25	0.15	0.01
2013-P61	PDD096	138.45	138.65	0.2	0.12
2013-P62	PDD096	140.31	140.51	0.2	0.12
2013-P63	PDD096	144.2	144.36	0.16	0.16
2013-P64	PDD096	148.15	148.36	0.21	0.005
2013-P65	PDD096	154.69	154.88	0.19	0.005

Table 4: Core samples- Pamao Deposit

Sample No	Core ID	Depth start (m)	Depth end (m)	Thickness (m)	Grade (g/t)
PB12-PM01	PMDD006	76.365	76.525	0.16	3.66
PB12-PM02	PMDD006	78.31	78.51	0.2	7.72
PB12-PM03	PMDD006	92.23	92.36	0.13	0.53
PB12-PM04	PMDD008	55.28	55.43	0.15	0.005
PB12-PM05	PMDD008	60.86	61.04	0.18	0.005
PB12-PM06	PMDD008	98.77	98.9	0.13	0.06
PB12-PM07	PMDD008	106.59	106.74	0.15	2.07
PB12-PM08	PMDD008	115.16	115.28	0.12	0.65
PB12-PM09	PMDD008	117.14	117.33	0.19	0.44
PB12-PM10	PMDD008	124.32	124.48	0.16	0.12
PB12-PM11	PMDD008	152.94	153.11	0.17	0.005
2013-PM1	PMDD002	41.62	41.74	0.12	0.05
2013-PM2	PMDD002	45.25	45.34	0.09	1.56
2013-PM3	PMDD002	47.64	47.81	0.17	1.92
2013-PM4	PMDD002	51.76	51.93	0.17	0.46
2013-PM5	PMDD002	61.2	61.34	0.14	
2013-PM6	PMDD002	61.01	61.16	0.15	
2013-PM7	PMDD002	64.09	64.21	0.12	2.84
2013-PM8	PMDD002	64.53	64.65	0.12	2.84
2013-PM9	PMDD002	65.14	65.28	0.14	0.27
2013-PM10	PMDD002	74.17	74.36	0.19	0.35
2013-PM11	PMDD002	78.1	78.3	0.2	
2013-PM12	PMDD002	80.82	81	0.18	1.12
2013-PM13	PMDD002	96.15	96.3	0.15	0.005
2013-PM14	PMDD002	109.56	109.56	0	0.03
2013-PM15	PMDD028	58.59	58.79	0.2	
2013-PM16	PMDD028	82.72	82.84	0.12	
2013-PM17	PMDD028	103.09	103.29	0.2	
2013-PM18	PMDD028	114.48	114.7	0.22	0.84
2013-PM19	PMDD028	122.69	122.92	0.23	0.11
2013-PM20	PMDD028	124.09	124.32	0.23	0.04
2013-PM21	PMDD028	128.29	128.48	0.19	0.07
2013-PM22	PMDD028	150.24	150.5	0.26	0.09
2013-PM23	PMDD028	154.83	154.98	0.15	
2013-PM24	PMDD028	158.84	159.08	0.24	
2013-PM25	PMDD028	160	161.2	1.2	
2013-PM26	PMDD028	165.48	165.67	0.19	0.005
2013-PM27	PMDD028	174.22	174.4	0.18	
2013-PM28	PMDD023	19.86	20	0.14	0.01
2013-PM29	PMDD023	22.77	22.93	0.16	
2013-PM30	PMDD023	23.33	23.51	0.18	
2013-PM31	PMDD023	24.38	24.57	0.19	
2013-PM32	PMDD023	25.51	25.63	0.12	
2013-PM33	PMDD023	36.83	36.96	0.13	
2013-PM34	PMDD023	37.67	37.79	0.12	
2013-PM35	PMDD023	39.97	40.11	0.14	0.65
2013-PM36	PMDD023	41.25	41.42	0.17	0.65
2013-PM37	PMDD023	44.61	44.91	0.3	
2013-PM38	PMDD023	50.43	50.59	0.16	0.01
2013-PM39	PMDD023	60.28	60.45	0.17	0.01
2013-PM40	PMDD023	69.25	69.35	0.1	0.1
2013-PM41	PMDD023	71.38	71.59	0.21	0.12
2013-PM42	PMDD023	77.45	77.61	0.16	
2013-PM43	PMDD023	88.34	88.49	0.15	
2013-PM44	PMDD023	98.19	98.32	0.13	
2013-PM45	PMDD023	101.75	101.89	0.14	

Table 5: Core-Samples- Sessenge Granite

Sample No	Core ID	Depth start (m)	Depth end (m)	Thickness (m)	Grade (g/t)
PB12-S01	SDD014	44.91	45.06	0.15	0.02
PB12-S02	SDD014	125.44	125.63	0.19	1.02
PB12-S03	SDD014	126.83	126.9	0.07	6.97
PB12-S04	SDD014	139.03	139.18	0.15	3.18
PB12-S05	SDD014	143.85	144	0.15	11.7
PB12-S06	SDD014	172.54	172.74	0.2	0.02
PB12-S07	SGT-007	22.78	22.92	0.14	~0.05
PB12-S08	SGT-007	28.1	28.3	0.2	~0.05

Appendix 2a:Kibali Granite-Greenstone Belt: Igneous lithologies EDS data

Table 1: Sample AMB1

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	Total	Mineral
AMB-1	1-a	105.89									105.89	Quartz
AMB-1	1-b	105.10									105.10	Quartz
AMB-1	1-c	104.39									104.39	plagioclase
AMB-1	1-d	70.09		19.22				0.39		11.49	101.19	plagioclase
AMB-1	1-e	70.66		19.32				0.47		10.94	101.39	plagioclase
AMB-1	1-f	70.18		19.15				0.41		11.58	101.32	plagioclase
AMB-1	1-g	70.41		18.99				0.41		11.64	101.45	plagioclase
AMB-1	1-h	49.66	0.39	27.77	3.35		2.77		10.56		94.50	Al-celadonite
AMB-1	1-i	50.38		27.61	3.23		2.79		10.35		94.36	Al-celadonite
AMB-1	1-j	49.71		26.42	3.19		2.88		10.32		92.51	Al-celadonite
AMB-1	1-k	49.98		28.38	3.46		2.75		10.52		95.09	Al-celadonite
AMB-1	1-l	38.77		21.04	14.11			23.16			97.08	epidote
AMB-1	1-m	39.25		25.35	9.25			23.32			97.17	epidote
AMB-1	1-n	38.51		23.01	11.58			23.07			96.17	epidote
AMB-1	1-o	32.46	36.37	2.49	0.85			28.58			100.76	epidote
AMB-1	1-p	39.03	0.88	15.14	18.11		12.22		9.34		94.74	Al-celadonite
AMB-1	1-q	38.19	0.93	15.15	18.40		12.02		9.12		93.82	Al-celadonite
AMB-1	1-r	66.54		18.15					15.60	0.32	100.61	plagioclase
AMB-1	1-s	70.58		19.03						11.80	101.41	plagioclase
AMB-1	2-a	104.58									104.58	Quartz
AMB-1	2-b	105.36									105.36	Quartz
AMB-1	2-c	106.82									106.82	Quartz
AMB-1	2-d	70.50		19.15						11.81	101.46	plagioclase
AMB-1	2-e	69.26		19.09				0.55		11.42	100.32	plagioclase

Table 1: Sample AMB1; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	Total	Mineral
AMB-1	2-g	69.90		18.82						11.76	100.48	plagioclase
AMB-1	2-h	69.65		19.44				0.49		11.63	101.21	plagioclase
AMB-1	2-i	52.56		26.64	3.04		3.28		10.81		96.32	Al-celadonite
AMB-1	2-j	48.97	0.38	26.20	3.11		2.84		10.27		91.76	Al-celadonite
AMB-1	2-k	51.59		25.81	3.03		3.10		10.52		94.05	Al-celadonite
AMB-1	2-l	66.05		17.75					15.81		99.61	epidote
AMB-1	2-m	38.98		24.35	9.81			22.78			95.92	epidote
AMB-1	2-n	40.58		23.80	8.62			21.16			94.17	epidote
AMB-1	2-o	38.33		20.87	14.02			23.15			96.36	epidote
AMB-1	2-p	38.16	0.97	14.97	18.15		11.60		9.22		93.08	Al-celadonite
AMB-1	2-q	38.35	0.96	15.17	18.30	0.40	12.03		9.38		94.59	Al-celadonite

Table 2: Sample AT4

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	V_2O_5 wt%	BaO wt%	Sc_2O_3 wt%	ZrO_2 wt%	Total	Mineral
At-4	1-a	105.09														105.09	Quartz
At-4	1-b	104.98														104.98	Quartz
At-4	1-c	103.29														103.29	Quartz
At-4	1-d	106.66														106.66	Quartz
At-4	1-e	69.53		19.21				0.55		11.39						100.68	plagioclase
At-4	1-f	66.65		20.15				2.28		10.62						99.70	plagioclase
At-4	1-g	69.98		19.16				0.39		11.62						101.15	plagioclase
At-4	1-h				0.63	0.67		51.30						1.00		53.60	calcite
At-4	1-i	38.04		20.50	13.28			21.77								93.59	epidote
At-4	1-i2	52.09		26.45	3.27		3.19		10.39							95.39	Al-celadonite
At-4	1-j	38.09		21.33	12.81			22.55								94.78	epidote
At-4	1-j2	50.95		28.32	3.73		2.78		10.01							95.79	Al-celadonite
At-4	1-k	39.83		24.83	9.45			23.03								97.13	epidote
At-4	1-k2	48.00		25.07	3.38		2.84	0.51	9.90							89.70	Al-celadonite
At-4	1-l	39.25		23.84	10.92			23.12								97.13	epidote
At-4	1-l2	52.39		25.45	3.23		3.37		10.37							94.82	Al-celadonite
At-4	1-m	39.91	1.20	15.69	17.05		13.33		9.45							96.63	Al-celadonite
At-4	1-n	37.25	7.47	12.84	14.02	0.34	10.82	4.93	7.85							95.52	Al-celadonite
At-4	1-o	38.48	1.09	15.16	16.83		12.99		9.19							93.74	Al-celadonite
At-4	1-p	30.39	36.06	1.03	1.93			26.77								96.19	epidote
At-4	1-r	38.60	1.19	15.50	16.98		12.94		8.94							94.15	Al-celadonite
At-4	2-a	105.04														105.04	Quartz
At-4	2-b	104.65														104.65	Quartz
At-4	2-c	104.68														104.68	Quartz
At-4	2-d	64.85		21.79	1.29		1.10	0.41	3.38	7.76						100.58	Al-celadonite
At-4	2-f	70.07		19.16				0.47		11.23						100.94	plagioclase

Table 2: Sample AT4; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	V_2O_5 wt%	BaO wt%	Sc_2O_3 wt%	ZrO_2 wt%	Total	Mineral
At-4	2-f	67.68		20.36				1.98		10.87						100.89	plagioclase
At-4	2-g	68.60		19.67	0.37				0.87	11.54						101.06	plagioclase
At-4	2-h	68.68		18.79				0.22		11.63						99.32	plagioclase
At-4	2-i	49.44		26.80	3.40		2.80		10.66							93.10	Al-celadonite
At-4	2-j	44.53		28.57	2.88		1.59		10.15							87.73	Al-celadonite
At-4	2-k	47.31		30.03	3.23		1.73		10.15				0.94			93.39	Al-celadonite
At-4	2-l	50.58		25.10	3.36		3.27		10.24							92.55	Al-celadonite
At-4	2-m	37.71		22.76	11.70			22.47								94.65	epidote
At-4	2-n	38.89	0.97	14.69	16.02		13.01		9.07							92.64	Al-celadonite
At-4	2-o	37.71		21.36	12.83			22.40								94.30	epidote
At-4	2-p	37.97		22.48	10.95			22.21								93.60	epidote
At-4	2-q	37.98	1.01	14.81	16.47		13.05		9.11							92.44	Al-celadonite
At-4	2-r	37.84		20.00	13.70			22.68				0.43				94.95	epidote
At-4	2-s	32.47			0.51										64.11	97.09	zircon

Table 3: Sample K4

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	V_2O_5 wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
K4	1-a	103.02														103.02	Quartz
K4	1-b	103.63														103.63	Quartz
K4	1-c	70.71		18.79				0.29		11.71						101.49	plagioclase
K4	1-d	69.46		18.77						12.03						100.26	plagioclase
K4	1-e	68.85		19.01				0.39		11.73						99.98	plagioclase
K4	1-f	68.89		18.68				0.38		11.88						99.84	plagioclase
K4	1-g	39.11		25.73	7.78			23.21								95.84	epidote
K4	1-h	49.81		5.46	15.05	0.38	12.41	12.23	0.33	1.06						96.74	chlorite
K4	1-i	49.88		26.94	2.26		2.27		10.48							91.84	Al-Celadonite
K4	1-j	49.54		24.88	3.07		2.94		10.11							90.54	Al-Celadonite
K4	1-k	50.01		25.91	3.14		2.76		10.64							92.45	Al-Celadonite
K4	1-l	48.24		25.87	3.00		2.65		9.99							89.75	Al-Celadonite
K4	1-l2	48.82		25.52	2.91		2.90		10.24							90.39	Al-Celadonite
K4	1-m	0.78						53.47			38.86					93.11	Ca-phosphate
K4	1-q	31.79												62.72		94.51	zircon
K4	1-r	68.95		19.15				0.79		11.48						100.36	plagioclase
K4	1-s	50.98		26.73	3.07		2.81		10.29							93.87	Al-Celadonite
K4	2-a	104.41														104.41	Quartz
K4	2-b	104.59														104.59	Quartz
K4	2-c	69.77		18.96						12.20						100.94	plagioclase
K4	2-d	70.41		18.79						11.92						101.13	plagioclase
K4	2-e	68.57		19.55				1.04		11.47						100.62	plagioclase
K4	2-f	68.92		19.54				0.86		11.83						101.14	plagioclase
K4	2-g	70.21		19.03				0.31		11.79						101.34	plagioclase
K4	2-h	69.50		19.18				0.65		12.03						101.36	plagioclase
K4	2-i	52.06		26.02	3.13		3.34		10.85							95.40	Al-Celadonite

Table 3: Sample K4; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	V_2O_5 wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
K4	2-j	51.68		25.90	3.26		3.00		10.78							94.62	Al-Celadonite
K4	2-k	50.32		27.25	2.83		2.70		10.52							93.61	Al-Celadonite
K4	2-l	65.82		17.97					15.32						1.10	100.21	orthoclase
K4	2-m	40.00		25.88	7.53			23.16								96.57	epidote
K4	2-n	40.55		31.06	0.55			24.64								96.79	epidote
K4	2-o	40.24		28.89	4.59	0.51		23.70								97.93	epidote
K4	2-p	39.92		29.27	4.38			24.08								97.66	epidote
K4	2-q	54.22		2.76	14.51	0.36	13.95	12.63	0.26	0.63						99.31	chlorite
K4	2-r	31.70	37.03	2.10	0.70			28.35								99.88	epidote

Table 4: Sample MK02

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	V_2O_5 wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
MK02	1-a	70.60		18.87						11.73						101.21	plagioclase
MK02	1-b	105.36														105.36	Quartz
MK02	1-c	69.64		19.10				0.30		11.82						100.86	plagioclase
MK02	1-d	69.57		19.32				0.55		11.58						101.02	plagioclase
MK02	1-e	67.88		19.32				0.36	1.07	11.23						99.87	plagioclase
MK02	1-f	70.42		19.01						11.43						100.86	plagioclase
MK02	1-g	69.75		19.36				0.53		11.24						100.88	plagioclase
MK02	1-h	51.27		26.94	2.62		3.06		10.50						0.71	95.10	Al-Celadonite
MK02	1-j	48.86		28.74	2.37		2.14		9.50							91.61	Al-Celadonite
MK02	1-k	40.24		31.51	1.73			24.56								98.04	epidote
MK02	1-l	38.91		24.39	9.49			22.90								95.69	epidote
MK02	1-m	36.10	1.03	15.09	18.83		10.25		8.55							89.86	Al-Celadonite
MK02	1-n	37.60	0.91	15.71	18.75		10.21	0.39	7.50							91.08	Al-Celadonite
MK02	1-o	26.71		20.07	26.54	0.29	14.20									87.90	Al-Celadonite
MK02	1-p	28.02		18.32	25.14		14.25									85.74	Al-Celadonite
MK02	1-q	31.96	34.67	3.11	1.55			28.76								100.05	pyroxene
MK02	1-r	32.15	35.83	2.55	1.37			28.67								100.58	pyroxene
MK02	1-s	32.71												64.60		97.30	Quartz
MK02	2-a	105.18														105.18	Quartz
MK02	2-b	68.59		20.16				1.60		10.97						101.33	plagioclase
MK02	2-c	105.28														105.28	Quartz
MK02	1-d	70.42		19.36				0.38		11.29						101.45	plagioclase
MK02	2-e	69.12		19.39				0.90		11.35						100.75	plagioclase
MK02	2-f	69.87		18.94				0.26		11.69						100.76	plagioclase
MK02	2-g	69.69		18.85				0.24		11.64						100.42	plagioclase

Table 4: Sample MK02; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	V_2O_5 wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
MK02	2-h	49.78		26.54	2.59		2.92		10.22							92.05	Al-Celadonite
MK02	2-i	48.96		30.00	2.27		1.72		10.43							93.38	Al-Celadonite
MK02	2-j	49.10		31.16	2.21		1.71		10.26							94.44	Al-Celadonite
MK02	2-k	39.03		25.01	8.37			23.71								96.12	epidote
MK02	2-l	39.47		23.72	10.49			23.57								97.26	epidote
MK02	2-m	38.16	0.92	15.84	18.45		10.42		8.47							92.26	Al-Celadonite
MK02	2-n	38.07		22.03	13.04	0.47		21.97								95.56	epidote
MK02	2-o	38.52		20.81	14.38			22.94								96.64	epidote
MK02	2-p	27.91		19.33	25.55	0.31	15.31									88.42	Al-Celadonite
MK02	2-q	28.01		19.43	25.64	0.37	15.16									88.62	Al-Celadonite

Table 5: Sample MK01

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	V_2O_5 wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
MK01	1-a	101.62														101.62	Quartz
MK01	1-b	100.51														100.51	Quartz
MK01	1-c	100.72														100.72	Quartz
MK01	1-d	68.30		18.42						11.84						98.56	Plagioclase
MK01	1-d2	68.16		18.55						11.54						98.25	Plagioclase
MK01	1-e	68.83		18.84				0.54		11.57						99.77	Plagioclase
MK01	1-f	70.12		18.80						12.01						100.94	Plagioclase
MK01	1-g	68.79		19.07				0.65		11.79						100.31	Plagioclase
MK01	1-h	36.79	0.85	14.99	18.65		10.98		9.11							91.38	Chlorite
MK01	1-h2	47.32		32.26	1.24		1.16		10.09	0.36						92.43	Al-Celadonite
MK01	1-i	42.41		24.73	7.66			20.35		0.48						95.63	Al-Celadonite
MK01	1-i2	51.54		24.88	2.70		3.51		10.34							92.97	Al-Celadonite
MK01	1-j	38.06	0.85	15.03	18.59	0.29	11.20		9.37							93.39	Al-Celadonite
MK01	1-j2	51.09		24.63	3.66		3.67		10.36							93.41	Al-Celadonite
MK01	1-k	38.67		26.18	6.73			23.12								94.70	Epidote
MK01	1-k2	48.33		27.99	2.90		2.48		10.50							92.19	Al-Celadonite
MK01	1-l	36.85	1.24	15.37	18.52		11.03		9.12							92.12	Al-Celadonite
MK01	1-m	31.20	35.69	2.34	1.03			28.30								98.56	Epidote
MK01	1-n	37.03	0.95	15.30	19.04		10.93	0.30	8.73							92.28	Al-Celadonite
MK01	1-o	36.32	0.81	15.00	20.19		12.05		7.46							91.83	Al-Celadonite
MK01	1-p	36.42	0.97	15.07	19.07		10.67		8.90							91.11	Al-Celadonite
MK01	1-q	27.19		18.79	25.09		14.33									85.39	Chlorite
MK01	1-r	29.82												57.49		87.30	Zircon
MK01	2-a	105.19														105.19	Quartz
MK01	2-b	104.38														104.38	Quartz
MK01	2-c	70.04		19.03						11.90						100.96	Plagioclase

Table 5: Sample MK01; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	V_2O_5 wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
MK01	2-d	70.13		19.04				0.24		11.83						101.25	Plagioclase
MK01	2-d	70.13		18.72						11.83						100.68	Plagioclase
MK01	2-e	70.10		18.96				0.38		11.84						101.28	Plagioclase
MK01	2-f	69.06		19.13				0.80		11.58						100.57	Plagioclase
MK01	2-g	69.65		18.93				0.31		11.95						100.85	Plagioclase
MK01	2-h	36.96	0.88	15.42	18.86		11.06		9.05							92.23	Al-Celadonite
MK01	2-i	39.08		25.19	7.99			22.90								95.16	Epidote
MK01	2-i	46.22		32.53	1.98		1.12		10.20							92.06	Al-Celadonite
MK01	2-j	39.13		26.03	7.35			22.89								95.41	Epidote
MK01	2-j2	46.71		33.76	1.52		0.59		10.31	0.38						93.26	Al-Celadonite
MK01	2-k	39.58		26.30	7.59			23.29								96.76	Epidote
MK01	2-k2	49.17	0.36	27.70	2.88		2.44		10.09							92.64	Al-Celadonite
MK01	2-l	38.46	1.40	15.37	19.11		10.89		8.86							94.09	Al-Celadonite
MK01	2-m	0.52			0.56			54.56			40.24					95.87	Epidote
MK01	2-n	47.80		30.94	2.13		1.33		10.47	0.37						93.04	Al-Celadonite
MK01	2-o	0.62						54.61			40.38					95.62	Epidote
MK01	2-p	38.61		21.09	13.29	0.37		22.25					0.40			96.01	Epidote
MK01	2-q	39.40		24.01	10.55			23.46								97.43	Epidote
MK01	2-r	38.64	1.37	15.59	19.09		11.50		9.29							95.48	Al-Celadonite
MK01	2-s	32.64												65.01		97.65	Zircon

Table 6: Sample S08

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	V_2O_5 wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
S08	SITE 2 A	101.44														101.44	Quartz
S08	SITE 2 B	100.90														100.90	Quartz
S08	SITE 2 C	101.69														101.69	Quartz
S08	SITE 2 D	100.98														100.98	Quartz
S08	SITE 2 E	99.49														99.49	Quartz
S08	SITE 2 F	68.42		18.99				0.48		11.32						99.21	Albite
S08	SITE 2 G	69.53		19.02						11.70						100.26	Albite
S08	SITE 2 H	68.98		19.30				0.36		11.68						100.33	Albite
S08	SITE 2 I	69.96		19.24						11.54						100.74	Albite
S08	SITE 2 J	69.97		18.91						11.86						100.74	Albite
S08	SITE 2 K	50.04	0.34	26.45	3.53		2.95		10.34							93.65	Al-Celadonite
S08	SITE 2 L	49.76		26.45	3.81		3.01		10.46							93.48	Al-Celadonite
S08	SITE 2 M	50.49		24.36	3.97		3.54		10.39							92.74	Al-Celadonite
S08	SITE 2 N	50.97		25.36	3.31		3.23		10.48							93.36	Al-Celadonite
S08	SITE 2 O	31.21	36.22	1.60	0.88			28.32				0.31	0.81			99.35	Sphene
S08	SITE 2 P	38.45		21.58	13.09			22.65								95.78	Epidote
S08	SITE 2 Q	0.73						54.52			40.38					95.63	Ca-Phosphate
S08	SITE 2 R	38.37		23.24	10.56			22.98								95.15	Epidote

Table 7: Sample KOK1

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	V_2O_5 wt%	CoO wt%	Total	Mineral
KOK3	SITE 2 K	38.99		22.54	12.86			23.29						97.69	epidote
KOK3	SITE 2 L	39.06		22.99	13.23			23.34						98.63	epidote
KOK3	SITE 2 M	27.01		18.54	24.12	0.44	16.10							86.20	chlorite
KOK3	SITE 2 N	27.67		19.53	24.67	0.48	16.11							88.47	chlorite
KOK3	SITE 2 O	26.94		18.84	24.12	0.45	15.85							86.20	chlorite
KOK3	SITE 2 P	49.84		31.09	1.91		1.70		10.03					94.56	Al-Celadonite
KOK3	SITE 2 Q	50.20		29.24	2.71		2.27		10.37					94.80	Al-Celadonite
KOK3	SITE 2 R	27.02		20.22	24.53		15.80							87.57	chlorite
KOK3	SITE 2 S	31.69	38.04	1.66				28.38						99.76	sphene
KOK3	SITE 3 A	70.82		20.23				0.80		11.66				103.51	plagioclase
KOK3	SITE 3 B	104.51												104.51	Quartz
KOK3	SITE 3 C	57.15		1.01	12.72		16.28	12.63						99.79	amphibole
KOK3	SITE 3 D	56.55		1.14	13.27		15.54	12.57						99.07	amphibole
KOK3	SITE 3 E	56.79		0.81	13.09		15.91	12.63						99.64	amphibole
KOK3	SITE 3 F	26.58		19.77	25.42	0.52	15.22							87.51	chlorite
KOK3	SITE 3 G	27.91		19.14	24.21	0.50	16.84							88.59	chlorite
KOK3	SITE 3 H	27.11		18.61	24.52	0.45	16.48							87.18	chlorite
KOK3	SITE 3 I	27.08		19.32	24.83	0.42	15.91							87.56	chlorite
KOK3	SITE 3 J	39.19		22.37	12.69			22.56						96.81	epidote
KOK3	SITE 3 K	38.50		22.39	12.95			22.67						96.52	epidote
KOK3	SITE 3 L	38.68		22.95	12.21			22.73						96.57	epidote
KOK3	SITE 3 M	38.84		22.64	13.03			23.02						97.54	epidote
KOK3	SITE 3 N	27.65		18.90	23.94		16.36							86.86	chlorite
KOK3	SITE 3 O	26.47		19.51	24.88	0.42	15.43						0.02	86.74	chlorite
KOK3	SITE 3 P	49.98		29.82	2.95		1.65		10.22					94.62	Al-Celadonite
KOK3	SITE 3 Q	53.02		26.54	3.09		3.56		10.51					96.72	Al-Celadonite
KOK3	SITE 3 R	31.82	40.69					28.61						101.12	sphene
KOK3	SITE 3 S	27.27	0.39	18.47	23.74		16.40							86.28	chlorite
KOK3	SITE 3 T	31.78	38.95	1.09	0.55			28.08						100.46	sphene

Table 8: Sample KOK5

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	V_2O_5 wt%	CoO wt%	Total	Mineral
KOK5	SITE 1 A	107.02												107.02	Quartz
KOK5	SITE 1 B	108.71												108.71	Quartz
KOK5	SITE 1 C	57.66		0.87	11.99		16.56	12.66						99.74	amphibole
KOK5	SITE 1 D	58.23		0.89	12.59		16.47	12.71						100.89	amphibole
KOK5	SITE 1 E	58.24		0.98	12.40		16.86	12.62						101.10	amphibole
KOK5	SITE 1 F	57.51		1.00	12.95		16.39	12.52						100.37	amphibole
KOK5	SITE 1 G	55.59		2.09	13.17	0.46	15.09	11.83		0.57				98.80	amphibole
KOK5	SITE 1 H	53.08		4.68	14.61	0.46	14.72	11.38		1.23				100.16	amphibole
KOK5	SITE 1 I	29.85		20.69	23.42	0.56	15.32							89.83	chlorite
KOK5	SITE 1 J	27.23		20.27	24.36		16.78						0.08	88.72	chlorite
KOK5	SITE 1 K	28.78		19.77	24.14		17.44							90.14	chlorite
KOK5	SITE 1 L	31.91		22.01	19.21		11.69							84.82	chlorite
KOK5	SITE 1 M	39.05		21.96	12.98			22.95						96.94	epidote
KOK5	SITE 1 N	38.72		22.40	12.88			22.96						96.96	epidote
KOK5	SITE 1 O	38.76		22.74	12.64			22.88						97.02	epidote
KOK5	SITE 1 P	38.96		22.24	13.40			22.92						97.52	epidote
KOK5	SITE 1 Q	39.46		23.24	13.16	0.50		22.86						99.22	epidote
KOK5	SITE 1 R	31.32	38.53	0.51	0.70			28.14				1.19		100.40	sphene
KOK5	SITE 1 S	31.73	35.89	2.40	0.79			27.81				1.69		100.30	sphene
KOK5	SITE 2 A	103.72												103.72	Quartz
KOK5	SITE 2 B	69.74		18.73						11.98				100.44	plagioclase
KOK5	SITE 2 C	57.08		0.71	12.45		16.50	12.54						99.28	amphibole
KOK5	SITE 2 D	56.87		0.80	12.43		16.30	12.40						98.80	amphibole
KOK5	SITE 2 E	56.01		0.69	12.64		16.15	12.50						97.98	amphibole
KOK5	SITE 2 F	56.25		1.71	14.30		15.19	11.81		0.61				99.88	amphibole
KOK5	SITE 2 G	56.64			16.96	0.45	13.90	12.22						100.17	amphibole

Table 8: Sample KOK5; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	V_2O_5 wt%	CoO wt%	Total	Mineral
KOK5	SITE 2 H	26.66		19.71	25.44		16.14						0.11	88.47	chlorite
KOK5	SITE 2 I	27.45		19.56	25.06		16.34							88.41	chlorite
KOK5	SITE 2 J	27.77		18.80	23.88	0.51	17.04							88.00	chlorite
KOK5	SITE 2 K	28.86		17.07	23.12		16.92	0.38						86.35	chlorite
KOK5	SITE 2 L	39.85		22.81	13.50			23.47						99.63	epidote
KOK5	SITE 2 M	39.58		22.53	13.62			23.71						99.44	epidote
KOK5	SITE 2 N	39.43		22.99	13.29			22.91						98.63	epidote
KOK5	SITE 2 O	50.29		29.74	4.10		2.04		9.28					95.45	Al-Celadonite
KOK5	SITE 2 P	54.47		24.24	4.61		3.94		9.51					96.77	Al-Celadonite
KOK5	SITE 2 Q	31.33	37.79	0.94	1.27			27.92						99.25	sphene
KOK5	SITE 2 R	30.55		18.31	21.38		15.97	0.93						87.14	chlorite
KOK5	SITE 2 S	30.97	38.32	0.95	0.69			27.34						98.27	sphene
KOK5	SITE 2 T	31.39		17.45	19.28		14.67	1.51						84.29	chlorite

Appendix 2a: Kibali Granite-Greenstone Belt: Metasediments EDS data

Table 1: Sample K18

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
K18	SITE 1 A	70.42		19.15						11.59				101.16	plagioclase
K18	SITE 1 B	70.40		18.98					0.25	11.73				101.35	plagioclase
K18	SITE 1 C	70.09		18.65						11.64				100.37	plagioclase
K18	SITE 1 D	26.41		20.21	25.57		14.98						0.21	87.38	chlorite
K18	SITE 1 E	26.24		19.55	24.78		14.90							85.48	chlorite
K18	SITE 1 F	32.92		21.90	16.42		11.11	0.21						82.55	chlorite
K18	SITE 1 G	49.88	0.32	26.30	3.85		2.66		9.86					92.88	Al-Celadonite
K18	SITE 1 H	105.24												105.24	quartz
K18	SITE 1 I	105.29												105.29	quartz
K18	SITE 1 J	48.43		31.47	2.52		1.19		9.19					92.81	Al-Celadonite
K18	SITE 1 K	49.99	0.38	26.87	3.63		2.40		10.36					93.63	Al-Celadonite
K18	SITE 1 L	50.14		26.94	3.48		2.43		10.23					93.23	Al-Celadonite
K18	SITE 1 M	50.90		29.94	2.16		2.03		10.44					95.48	Al-Celadonite
K18	SITE 1 N	1.61	64.88	5.60	12.51						3.09			87.69	chlorite
K18	SITE 1 O	2.18	65.96	6.11	10.55						3.05			87.85	chlorite
K18	SITE 1 P	1.23	62.43	5.01	10.90						2.66			82.23	chlorite
K18	SITE 2 A	69.75		18.50						11.61				99.86	plagioclase
K18	SITE 2 B	103.18												103.18	quartz
K18	SITE 2 C	69.19		18.60						11.75				99.55	plagioclase
K18	SITE 2 D	69.79		18.63						11.43				99.85	plagioclase
K18	SITE 2 E	103.51												103.51	quartz
K18	SITE 2 F	102.84		0.32					0.18					103.34	orthoclase
K18	SITE 2 G	103.17												103.17	quartz
K18	SITE 2 H	102.73												102.73	quartz
K18	SITE 2 I	27.10		20.05	23.76		13.86							84.76	chlorite
K18	SITE 2 J	26.39		18.54	24.66		14.87							84.46	chlorite
K18	SITE 2 K	26.53		19.80	24.38		15.07							85.79	chlorite

Table 1: Sample K18; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
K18	SITE 2 L	48.92	0.35	26.65	4.06		2.35		10.16					92.50	Al-Celadonite
K18	SITE 2 M	35.70		25.73	12.94		7.82							82.19	chlorite
K18	SITE 2 N	46.71		29.80	3.08		1.41		5.76					86.75	Al-Celadonite
K18	SITE 2 O	48.77		26.85	4.10		2.44		9.44					91.61	Al-Celadonite
K18	SITE 2 P	48.59		27.14	3.30		2.22		9.89					91.13	Al-Celadonite
K18	SITE 2 Q	48.37		26.87	3.10		2.44		10.25					91.04	Al-Celadonite
K18	SITE 2 R	49.75		26.88	3.16		2.46		9.58					91.83	Al-Celadonite
K18	SITE 2 S	49.03	0.29	26.06	3.55		2.53		10.11					91.57	Al-Celadonite
K18	SITE 3 A	69.14		18.51						11.61				99.26	plagioclase
K18	SITE 3 B	70.76		18.73						11.82				101.30	plagioclase
K18	SITE 3 C	70.00		18.55						11.55				100.10	plagioclase
K18	SITE 3 D	69.64		18.51				0.28		11.55				99.97	plagioclase
K18	SITE 3 E	103.19												103.19	quartz
K18	SITE 3 F	102.18		0.64										102.82	quartz
K18	SITE 3 G	69.84		18.73						11.87				100.44	plagioclase
K18	SITE 3 H	69.21		18.47						11.90				99.57	plagioclase
K18	SITE 3 I	26.86		19.84	24.56		14.47						0.25	85.97	chlorite
K18	SITE 3 J	27.04		19.47	24.73		15.14							86.37	chlorite
K18	SITE 3 K	27.19		20.11	24.28		14.78							86.36	chlorite
K18	SITE 3 L	49.34	0.40	27.00	3.88		2.27		9.14					92.03	Al-Celadonite
K18	SITE 3 M	49.18	0.45	26.41	3.75		2.43		9.92					92.15	Al-Celadonite
K18	SITE 3 N	48.75	0.50	27.35	3.55		2.15		8.98					91.29	Al-Celadonite
K18	SITE 3 O	47.70		29.03	3.65		1.77		10.17					92.32	Al-Celadonite
K18	SITE 3 P	46.96	0.28	28.38	3.54		1.81		10.27					91.24	Al-Celadonite
K18	SITE 3 Q	48.36		28.78	2.90		1.99		10.03					92.05	Al-Celadonite

Table 2: Sample K19

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Cr_2O_5	CoO_2	Total	Mineral
		wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%		
K19	SITE 1 A	70.18		18.80						11.68				100.65	plagioclase
K19	SITE 1 B	104.26												104.26	quartz
K19	SITE 1 C	69.59		18.82						11.65				100.06	plagioclase
K19	SITE 1 D	104.29												104.29	quartz
K19	SITE 1 E	26.25		19.61	25.30		14.97						0.09	86.22	chlorite
K19	SITE 1 F	26.34		19.26	25.39		14.97							85.96	chlorite
K19	SITE 1 G	49.31		26.68	3.86		2.40		9.03					91.28	Al-Celadonite
K19	SITE 1 H	26.55		18.87	25.40		15.40					0.42		86.65	chlorite
K19	SITE 1 I	28.49		20.58	24.60		14.90							88.56	chlorite
K19	SITE 1 J	47.78	0.79	27.01	4.43		2.23		9.74					91.98	Al-Celadonite
K19	SITE 1 K	26.07		20.03	24.98		14.42							85.50	chlorite
K19	SITE 1 L	31.18	37.35	1.60	0.58			27.86						98.58	sphene
K19	SITE 1 M	30.99	37.98	1.60	0.84			28.22						99.62	sphene
K19	SITE 1 N	31.21	38.21	1.46	0.94			28.22						100.05	sphene
K19	SITE 1 O	30.99	37.67	1.47	0.57			28.37						99.08	sphene
K19	SITE 1 P	31.52	38.17	1.34	0.87			28.14						100.04	sphene
K19	SITE 2 A	103.48												103.48	quartz
K19	SITE 2 B	69.54		18.96						11.59				100.09	plagioclase
K19	SITE 2 C	104.77												104.77	quartz
K19	SITE 2 D	102.50												102.50	quartz
K19	SITE 2 E	26.18		19.57	25.20		14.72							85.66	chlorite
K19	SITE 2 F	26.55		19.80	25.23		14.87							86.45	chlorite
K19	SITE 2 G	26.63		19.50	25.26		14.69						0.02	86.10	chlorite
K19	SITE 1 H	26.88		19.33	25.58		15.12							86.92	chlorite
K19	SITE 1 I	48.13	0.67	26.91	4.56		2.22		10.18					92.67	Al-Celadonite

Table 2: Sample K19; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
K19	SITE 1 J	49.14	0.67	27.28	4.12		2.21		9.99					93.42	Al-Celadonite
K19	SITE 2 K	50.11	0.39	26.78	3.87		2.51		10.08					93.74	Al-Celadonite
K19	SITE 2 L	49.84	0.36	25.91	4.10		2.67		10.08					92.95	Al-Celadonite
K19	SITE 2 M	31.01	37.56	1.48	0.57			28.03						98.66	sphene
K19	SITE 2 N	31.46	37.35	1.38	0.65			28.30						100.00	sphene
K19	SITE O	31.50	37.65	1.43	0.49			28.10						99.17	sphene
K19	SITE 2 P	31.00	37.65	1.56	0.64			27.96						98.81	sphene

Table 3: Sample KS1

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
KS1	SITE 1 A	103.11												103.11	quartz
KS1	SITE 1 B	102.29												102.29	quartz
KS1	SITE 1 C	101.42												101.42	quartz
KS1	SITE 1 D	69.11		18.68						11.65				99.43	plagioclase
KS1	SITE 1 E	69.32		18.34						11.90				99.56	plagioclase
KS1	SITE 1 F	23.21		18.93	39.89		4.15							86.18	chlorite
KS1	SITE 1 G	23.05		18.20	39.81		3.97						0.08	85.12	chlorite
KS1	SITE 1 H				0.33			52.35			38.63			91.31	Ca-phosphate
KS1	SITE 1 I	22.87		18.89	39.18		4.18							85.13	chlorite
KS1	SITE 1 J	24.32		18.58	38.62		3.92							85.44	chlorite
KS1	SITE 1 K	22.71		19.00	39.80		3.91							85.42	chlorite
KS1	SITE 1 L	46.07	0.45	28.35	5.42		0.96		10.04					91.29	Al-Celadonite
KS1	SITE 1 M	47.31	0.47	27.32	5.61		1.09		9.90					91.70	Al-Celadonite
KS1	SITE 1 N	46.27	0.47	27.22	5.27		1.12		10.15					90.50	Al-Celadonite
KS1	SITE 1 O	46.84	0.45	26.59	6.16		1.18		10.04					91.26	Al-Celadonite
KS1	SITE 1 P	46.80	0.39	26.26	5.99		1.22		10.04					90.69	Al-Celadonite
KS1	SITE 1 Q	46.75	0.39	26.58	5.94		1.22		9.85					90.73	Al-Celadonite
KS1	SITE 1 R	46.60	0.38	26.50	6.21		1.22		9.95					90.87	Al-Celadonite
KS1	SITE 1 S	1.07			87.43									88.50	Fe-oxide
KS1	SITE 1 T		50.88		46.55	0.75							0.08	98.26	rutile
KS1	SITE 2 A	102.62			0.27									102.88	quartz
KS1	SITE 2 B	102.45												102.45	quartz
KS1	SITE 2 C	101.07		0.65	0.28				0.20					102.21	quartz
KS1	SITE 2 D	102.71												102.71	quartz
KS1	SITE 2 E	102.75												102.75	quartz
KS1	SITE 2 F	23.22		18.79	39.88		4.06							85.95	chlorite
KS1	SITE 2 G	23.41		18.02	39.67		3.68	0.30	0.20				0.22	85.50	chlorite

Table 3: Sample KS1; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
KS1	SITE 2 H	22.81		18.66	39.94		3.97							85.38	chlorite
KS1	SITE 2 I	23.49		18.73	39.42		4.17							85.81	chlorite
KS1	SITE 2 J	23.59		18.84	39.25		4.17						0.23	86.07	chlorite
KS1	SITE 2 K	47.04	0.51	26.87	5.82		1.22		9.74					91.20	Al-Celadonite
KS1	SITE 2 L	47.20	0.35	26.34	5.90		1.16		9.62					90.58	Al-Celadonite
KS1	SITE 2 M	45.58	0.56	26.39	5.46		1.03		9.63					88.65	Al-Celadonite
KS1	SITE 2 N				89.99									89.99	Fe-oxide
KS1	SITE 2 O				90.42								0.59	91.01	Fe-oxide
KS1	SITE 2 P		26.91		66.80	0.44								94.15	Fe-oxide
KS1	SITE 3 A	103.05			0.34									103.39	quartz
KS1	SITE 3 B	69.15		18.36						11.54				99.04	plagioclase
KS1	SITE 3 C	103.02												103.02	quartz
KS1	SITE 3 D	102.21												102.21	quartz
KS1	SITE 3 E	22.94		19.13	39.42		4.07							85.56	chlorite
KS1	SITE 3 F	23.52		18.94	39.09		4.43							85.99	chlorite
KS1	SITE 3 G	23.48		18.69	39.65		4.04						0.29	86.15	chlorite
KS1	SITE 3 H	24.04		19.09	40.95		4.13						0.26	88.47	chlorite
KS1	SITE 3 I	23.27		18.56	39.32		4.16							85.30	chlorite
KS1	SITE 3 J	23.89		18.64	39.88		3.92						0.23	86.56	chlorite
KS1	SITE 3 K	23.37		18.57	39.61		4.22							85.77	chlorite
KS1	SITE 3 L	44.94	0.53	27.42	5.75	0.48	0.94		9.42	0.31				89.79	Al-Celadonite
KS1	SITE 3 M	45.52	0.31	28.40	5.14		0.99		9.96					90.33	Al-Celadonite
KS1	SITE 3 N	47.90	0.45	26.63	6.25		1.23		10.04					92.49	Al-Celadonite
KS1	SITE 3 O	47.30	0.28	26.62	6.30		1.29		9.91					91.71	Al-Celadonite
KS1	SITE 3 P	46.95	0.44	26.61	5.67		1.17		10.01					90.86	Al-Celadonite
KS1	SITE 3 Q		1.22		88.74									89.96	Fe-oxide
KS1	SITE 3 R		0.66		89.03									89.69	Fe-oxide
KS1	SITE 3 S				89.74								0.58	90.32	Fe-oxide

Table 4: Sample Oere-1

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
Oere-1	SITE 1 A	104.53												104.53	quartz
Oere-1	SITE 1 B	103.54												103.54	quartz
Oere-1	SITE 1 C	103.28												103.28	quartz
Oere-1	SITE 1 D	69.91		19.00						12.09				101.00	plagioclase
Oere-1	SITE 1 E	70.16		19.01						11.59				100.76	plagioclase
Oere-1	SITE 1 F	103.82												103.82	quartz
Oere-1	SITE 1 G	47.01	0.58	30.10	2.71		1.54		9.26					91.20	Al-Celadonite
Oere-1	SITE 1 H	46.98	0.55	29.61	3.21		1.62		9.61	0.34				91.92	Al-Celadonite
Oere-1	SITE 1 I	47.50	0.54	29.43	3.44		2.01		9.42	0.31				92.66	Al-Celadonite
Oere-1	SITE 1 J	46.26	0.42	29.32	3.44		1.70		8.13					89.26	Al-Celadonite
Oere-1	SITE 1 K	24.78		20.62	28.50		12.16							86.05	chlorite
Oere-1	SITE 1 L	25.08		20.04	28.06		12.37							85.55	chlorite
Oere-1	SITE 1 M	26.63		21.07	25.79	0.29	11.81							85.58	chlorite
Oere-1	SITE 1 N		98.83											98.83	rutile
Oere-1	SITE 1 O		98.89		0.40									99.29	rutile
Oere-1	SITE 1 P	31.52	37.91	1.68	0.42			27.84						99.37	sphene
Oere-1	SITE 2 A	69.39		19.03				0.18		11.72				100.33	plagioclase
Oere-1	SITE 2 B	104.05												104.05	quartz
Oere-1	SITE 2 C	104.19		0.64						0.43				105.25	quartz
Oere-1	SITE 2 D	104.64												104.64	quartz
Oere-1	SITE 2 E	49.52	0.52	30.23	2.68		1.74		9.88	0.34				94.90	Al-Celadonite
Oere-1	SITE 2 F	45.92	0.47	29.69	4.43		1.83		8.51					90.85	Al-Celadonite
Oere-1	SITE 2 G	48.44	0.71	30.02	2.73		1.70		9.83	0.37				93.80	Al-Celadonite
Oere-1	SITE 2 H	25.83		20.46	28.43	0.32	12.38							87.42	chlorite
Oere-1	SITE 2 I	25.61		20.43	28.14	0.31	12.26							86.75	chlorite
Oere-1	SITE 2 J	25.93		20.71	28.40	0.28	12.41							87.74	chlorite
Oere-1	SITE 2 K	25.84		20.42	28.63		12.51							87.40	chlorite

Table 4: Sample: Oere-1; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
Oere-1	SITE 2 L	0.76			0.51			53.94			40.04			95.25	Ca-phosphate
Oere-1	SITE 2 M	31.79	38.04	1.72	0.53			28.13						100.20	sphene
Oere-1	SITE 2 N							54.77			40.00			94.77	Ca-phosphate
Oere-1	SITE 2 O		99.71		0.56									100.27	rutile
Oere-1	SITE 2 P	3.36		0.89	75.15						0.78			80.17	Fe-oxide
Oere-1	SITE 3 A	104.42												104.42	quartz
Oere-1	SITE 3 B	105.51												105.51	quartz
Oere-1	SITE 3 C	70.77		19.18						12.05				102.00	plagioclase
Oere-1	SITE 3 D	70.20		18.97						11.89				101.07	plagioclase
Oere-1	SITE 3 E	70.68		18.88						11.68				101.23	plagioclase
Oere-1	SITE 3 F	103.26		0.64	1.15		0.38							105.43	quartz
Oere-1	SITE 3 G	104.57												104.57	quartz
Oere-1	SITE 3 H	104.88												104.88	quartz
Oere-1	SITE 3 I	26.96		21.47	27.70	0.30	12.30							88.73	chlorite
Oere-1	SITE 3 J	25.99		20.42	28.20		11.96							86.57	chlorite
Oere-1	SITE 3 K	25.41		20.39	27.92		12.15							85.87	chlorite
Oere-1	SITE 3 L	25.22		20.23	27.89	0.26	12.26							85.86	chlorite
Oere-1	SITE 3 M	25.82		19.53	28.05	0.29	11.51						0.09	85.29	chlorite
Oere-1	SITE 3 N	26.22		20.98	27.64	0.29	11.90							87.03	chlorite
Oere-1	SITE 3 O	3.04			76.12								0.44	79.59	quartz
Oere-1	SITE 3 P	3.30		0.56	76.24						0.80		0.48	81.38	Fe-oxide

Table 5: Sample: 116-28

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
116-29	1-a	105.54												105.54	quartz
116-29	1-b	105.50												105.50	quartz
116-29	1-c	106.40												106.40	quartz
116-29	1-d	64.63		22.64				4.56		9.34				101.16	plagioclase
116-29	1-e	65.40		22.11				3.83		9.60				100.94	plagioclase
116-29	1-f	64.93		22.35				4.36		9.48				101.13	plagioclase
116-29	1-f2	65.40		22.48				4.45		9.72				102.05	plagioclase
116-29	1-g	64.58		22.73				4.75		9.27				101.32	plagioclase
116-29	1-h	37.70	1.89	16.60	15.80		12.24		8.97					93.21	biotite
116-29	1-i	38.12	1.81	16.95	15.49		12.48		8.92					93.78	biotite
116-29	1-j	38.21	2.04	17.12	15.45		12.57		9.07					94.46	biotite
116-29	1-k							54.81			39.96			94.77	Ca-phosphate
116-29	1-l	0.52						55.00			40.19			95.71	Ca-phosphate
116-29	1-m							55.33			40.60			95.93	Ca-phosphate
116-29	1-n		53.06		44.63	1.59							0.32	99.60	rutile
116-29	1-o	33.08			0.48									98.68	zircon
116-29	1-p	65.78		21.85				3.85		9.84				101.33	plagioclase
116-29	1-q	26.73		21.88	19.66		18.61							86.89	chlorite
116-29	1-r	36.30	1.98	16.18	15.41		11.90		8.31					90.06	Al-Celadonite
116-29	1-s		100.13		0.36									100.49	rutile
116-29	2-a	104.36												104.36	quartz
116-29	2-b	104.86												104.86	quartz
116-29	2-c	104.33												104.33	quartz
116-29	2-d	65.33		22.00				3.96		9.59				100.88	plagioclase
116-29	2-e	64.27		22.92				4.77		9.34				101.31	plagioclase
116-29	2-f	65.43		22.19				3.90		9.77				101.28	plagioclase

Table 5: Sample 116-28; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	Total	Mineral
116-29	2-g	64.97		22.26				4.19		9.71				101.13	plagioclase
116-29	2-h	64.45		22.46				4.22		9.68				100.81	plagioclase
116-29	2-i	37.93	1.90	16.89	15.75		12.51		9.07					94.05	biotite
116-29	2-j	38.78	2.03	17.35	15.33		12.63		9.02					95.15	biotite
116-29	2-k	38.40	1.83	16.83	15.54		12.51		8.84			0.33		94.28	biotite
116-29	2-l	37.75	1.92	16.53	15.58		12.03		8.75					92.57	biotite
116-29	2-m				9.97	0.65	13.78	28.10						52.49	calcite
116-29	2-n	24.93		19.98	18.88		17.17					0.28		81.23	chlorite
116-29	2-o				8.73	1.39	14.77	27.65						52.54	calcite
116-29	2-p		52.82		45.16	1.52							0.26	99.76	rutile
116-29	2-q		52.75		45.45	1.48							0.20	99.89	rutile
116-29	2-r		100.06		0.43									100.49	rutile
116-29	2-s	26.94		21.23	19.03		18.97					0.30		86.47	chlorite

Table 6: Sample H1

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	BaO wt%	Total	Mineral
H1	SITE 1 A	66.17		21.76				2.94		10.20					101.07	Plagioclase
H1	SITE 1 C	65.40		18.17					14.76	0.53				0.63	99.49	Plagioclase
H1	SITE 1 B	65.85		21.46				2.86		10.04					100.21	K-Feldspar
H1	SITE 1 D	66.47		18.37					15.32	0.61				0.69	101.46	K-Feldspar
H1	SITE 1 E	36.03	1.92	16.08	20.25	0.33	8.02		8.50						91.14	Biotite
H1	SITE 1 F	36.89	2.24	16.56	21.33	0.37	7.81		9.04						94.24	Biotite
H1	SITE 1 G	104.16													104.16	Quartz
H1	SITE 1 J	66.25		21.72				2.98	0.23	9.89					101.06	Plagioclase
H1	SITE 1 K	65.81		21.55				2.97	0.17	10.31					100.80	Plagioclase
H1	SITE 1 L	65.53		18.11					14.90	0.57					99.11	K-Feldspar
H1	SITE 1 M	65.92	0.38	18.30					14.95	0.53					100.09	K-Feldspar
H1	SITE 1 N	37.11	2.06	16.23	21.71	0.40	8.32		8.85						94.67	Biotite
H1	SITE 1 O	38.12	2.01	16.88	21.74	0.49	8.26		9.21						96.72	Biotite
H1	SITE 1 P	103.56													103.56	Quartz
H1	SITE 1 Q	66.48		21.46				2.84	0.18	10.19					101.15	Plagioclase
H1	SITE 1 R	65.90		18.13					15.04	0.62				0.57	100.25	K-Feldspar
H1	SITE 1 S	65.61		18.16					15.11	0.54					99.42	K-Feldspar
H1	site 2 a	66.06		21.13				2.94		9.81					99.93	Plagioclase
H1	site 2 b	66.18		21.02				2.96	0.19	10.09					100.45	Plagioclase
H1	site 2 c	66.62		20.95				3.01		10.05					100.64	Plagioclase
H1	site 2 d	66.47		20.80				2.69		10.10					100.07	Plagioclase
H1	site 2 e	66.07		20.97				2.95		9.89					99.87	Plagioclase
H1	site 2 f	66.37		21.03				3.04	0.18	10.25					100.88	Plagioclase
H1	site 2 g	66.47		21.03				2.83		10.34					100.67	Plagioclase
H1	site 2 h	66.31		20.67				2.71		10.30					99.99	Plagioclase
H1	site 2 i	66.41		21.28				2.91		10.02					100.62	Plagioclase

Table 6: Sample H1; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	BaO wt%	Total	Mineral
H1	site 2 j	66.25		17.63					14.82	0.82				0.47	99.99	K-Feldspar
H1	site 2 k	67.06		18.11					15.18	0.47				0.69	101.50	K-Feldspar
H1	site 2 l	65.53		17.49					15.21	0.60				0.60	99.42	K-Feldspar
H1	site 2 m	66.24		17.54					15.13	0.65				0.54	100.11	K-Feldspar
H1	site 2 n	66.51		17.88					14.97	0.58				0.44	100.37	K-Feldspar
H1	site 2 o	66.18		17.81					15.31	0.50				0.49	100.30	K-Feldspar
H1	site 2 p	47.82	0.44	29.62	2.55		1.55		10.17						92.17	Al-Celadonite
H1	site 2 q	48.14	0.37	27.97	2.99		2.01		10.21						91.69	Al-Celadonite
H1	site 2 r	40.32	1.48	17.15	22.58		7.75		5.18						94.45	Biotite
H1	site 2 s	39.19	2.16	16.86	20.09	0.40	7.99		8.34						95.03	Biotite
H1	site 2 t	36.98	1.99	15.86	19.57	0.40	8.02		8.41						91.24	Biotite
H1	site 2 u	103.35													103.35	Quartz
H1	site 2 v	103.46													103.46	Quartz
H1	site 3 a	103.83													103.83	Quartz
H1	site 3 b	104.30													104.30	Quartz
H1	site 3 c	103.95													103.95	Quartz
H1	site 3 d	66.11		21.14				3.03		9.95					100.22	Plagioclase
H1	site 3 e	66.88		20.90				2.90		10.02					100.70	Plagioclase
H1	site 3 f	66.59		21.20				2.93		10.08					100.79	Plagioclase
H1	site 3 g	66.42		20.60				2.73		10.17					99.92	Plagioclase
H1	site 3 h	67.35		20.53				2.18		10.61					100.66	Plagioclase
H1	site 3 i	66.61		20.89				2.85		10.04					100.39	Plagioclase
H1	site 3 j	66.61		21.13				2.94		9.96					100.64	Plagioclase
H1	site 3 k	65.94		18.01					15.17	0.48				0.52	100.11	K-Feldspar
H1	site 3 l	65.94		17.93					15.14	0.65				0.53	100.20	K-Feldspar
H1	site 3 m	65.49		17.84					15.08	0.56				0.49	99.45	K-Feldspar

Table 6: Sample H1; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_5 wt%	CoO_2 wt%	BaO wt%	Total	Mineral
H1	site 3 n	66.83		17.95					15.29	0.61					100.68	K-Feldspar
H1	site 3 o	65.64		17.68					15.00	0.47				0.47	99.25	K-Feldspar
H1	site 3 p	66.58		17.88					15.18	0.58				0.37	100.59	K-Feldspar
H1	site 3 q							54.68			40.64				95.32	Ca-phosphate
H1	site 3 r	38.09	2.12	16.34	19.96	0.41	7.57		7.69						92.17	Biotite
H1	site 3 s	39.93	1.85	17.58	20.22	0.33	7.77		7.22						94.90	Biotite
H1	site 3 t	36.98	2.03	16.05	20.58	0.37	7.41		8.13						91.55	Biotite
H1	site 3 u	37.69	2.23	16.15	21.64	0.45	7.79		8.97						94.91	Biotite

Appendix 2b: Upper Congo Granite Massif: Watsa-C lithologies EDS data

Table 1: Sample W15

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	Na_2O wt%	V_2O_5	Total	Mineral
W15	1-a	70.34		19.11					11.79		101.23	plagioclase
W15	1-b	69.38		19.33				0.38	11.38		100.46	plagioclase
W15	1-c	104.97									104.97	Quartz
W15	1-d	69.39		19.27				0.47	11.50		100.64	plagioclase
W15	1-e	54.92		1.97	16.41	0.39	13.06	12.50			99.24	amphibole
W15	1-e	31.89	37.57	1.73	1.17			28.07			100.42	amphibole
W15	1-f	54.50		2.12	16.25	0.40	12.83	12.36			98.46	amphibole
W15	1-g	54.69	0.37	1.85	16.16	0.42	13.16	12.48			99.13	amphibole
W15	1-h	55.07		1.80	16.80		12.66	12.47			98.80	amphibole
W15	1-i	55.30	0.58	1.95	16.15	0.30	12.44	12.21			98.93	amphibole
W15	1-j	55.27		1.94	17.13		12.21	12.32			98.87	amphibole
W15	1-k	31.48	39.22	0.98	0.30			28.52			100.51	Sphene
W15	1-l	31.38	39.68	0.87				28.41			100.34	Sphene
W15	1-m	31.50	39.12	1.20	0.38			28.71			100.91	Sphene
W15	1-n	31.17	39.35	0.88	0.48			28.61			100.49	Sphene
W15	1-o	39.33		25.57	8.09			23.58			96.57	epidote
W15	1-p	39.49		26.71	7.58			23.84			97.62	epidote
W15	1-q	39.42		25.21	9.20			23.30			97.12	epidote
W15	1-r	39.16		25.36	8.72			23.58			96.82	epidote
W15	2-a	70.02		19.18				0.46	11.75		101.41	plagioclase
W15	2-b	69.05		19.18				0.42	11.75		100.40	plagioclase
W15	2-c	69.84		19.12				0.37	11.50		100.83	plagioclase
W15	2-d	97.30		4.85					1.92		104.06	Quartz
W15	2-e	53.35		3.02	18.32	0.36	11.56	12.17			98.79	amphibole
W15	2-f	53.20		3.93	18.45	0.34	11.25	12.33	0.47		99.97	amphibole
W15	2-g	55.18		1.69	16.55	0.31	13.23	12.55			99.52	amphibole
W15	2-h	55.50		1.92	15.86	0.28	13.88	12.60			100.04	amphibole
W15	2-i	54.86		1.75	16.28	0.41	13.30	12.30			98.90	amphibole
W15	2-j	31.69	37.25	1.69	0.71			28.06		0.87	100.27	Sphene
W15	2-k	31.72	37.79	1.51	0.72			28.32			100.06	Sphene
W15	2-l	31.75	38.25	1.41	0.69			28.58			100.67	Sphene
W15	2-m	31.48	37.78	1.63	0.55			28.35		0.78	100.56	Sphene
W15	2-n	31.44	38.30	1.49	0.56			27.98			99.77	Sphene
W15	2-o	41.55		25.83	6.84			21.69	0.49		96.41	epidote
W15	2-p	42.35		25.00	8.10			21.79	0.44		97.67	epidote
W15	2-q	55.20		1.28	16.69	0.36	12.93	12.60			99.06	amphibole
W15	2-r	39.75		25.99	8.28			23.89			97.91	epidote

Table 2: Sample W21

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	Na_2O wt%	V_2O_5	Total	Mineral
W21	SITE 1 A	102.02									102.02	Quartz
W21	SITE 1 B	104.57									104.57	Quartz
W21	SITE 1 C	77.46		14.64				0.38	8.83		101.31	plagioclase
W21	SITE 1 D	98.69		2.24					1.48		102.40	Quartz
W21	SITE 1 E	31.90	32.27	3.85	1.58			27.85		1.29	98.73	sphene
W21	SITE 1 F	45.37	1.91	5.98	25.56		6.82	10.11	1.11		97.67	amphibole
W21	SITE 1 G	31.90	32.30	3.99	1.48			27.75		1.66	99.07	sphene
W21	SITE 1 H	31.96	32.98	3.92	1.20			27.98		1.14	99.19	sphene
W21	SITE 1 I	31.79	32.98	3.77	1.95		0.37	27.40		0.90	99.50	sphene
W21	SITE 1 J	39.65		25.17	9.18			23.68			97.68	amphibole
W21	SITE 1 K	54.09		2.51	17.46	0.35	13.25	11.80			99.47	amphibole
W21	SITE 1 L	52.11		4.58	18.31		11.24	12.10	0.55		99.08	amphibole
W21	SITE 1 M	52.90		5.03	18.13	0.40	11.49	12.39	0.57		101.11	amphibole
W21	SITE 1 N	55.01		1.90	16.72		13.32	12.61			99.55	amphibole
W21	SITE 1 O	40.84	0.30	26.80	7.82			23.83			99.59	amphibole
W21	SITE 1 P	39.42		27.27	7.57			23.51			97.77	amphibole
W21	SITE 1 Q	40.16		25.79	8.47			22.75			97.17	amphibole
W21	SITE 1 T	54.81		1.46	16.09	0.31	13.02	12.43			98.13	plagioclase
W21	SITE 2 A	68.50		18.73				0.35	11.70		99.28	plagioclase
W21	SITE 2 B	70.91		18.52				0.46	11.08		100.97	Quartz
W21	SITE 2 C	102.77									102.77	Quartz
W21	SITE 2 D	99.20									99.20	Quartz
W21	SITE 2 E	67.83		18.84				0.51	11.65		98.83	Plagioclase
W21	SITE 2 F	31.10	37.55	1.52	0.58			27.79			98.53	sphene
W21	SITE 2 G	31.35	33.01	3.20	1.18			27.40		1.42	97.56	epidote
W21	SITE 2 H	45.17	1.48	5.99	25.65	0.39	6.40	10.16	1.43		97.46	sphene
W21	SITE 2 I	31.46	32.97	3.26	1.87		0.37	27.08		1.38	98.62	amphibole
W21	SITE 2 J	45.53	1.31	5.89	25.98	0.34	6.65	9.45	1.44		97.24	amphibole
W21	SITE 2 K	50.92		4.62	17.56	0.33	11.05	11.88	0.58		97.12	chlorite
W21	SITE 2 L	26.79		18.20	27.89	0.34	12.90				86.59	chlorite
W21	SITE 2 M	27.14		18.00	28.04	0.38	13.00				86.56	chlorite
W21	SITE 2 N	53.01		2.72	17.32	0.33	12.18	12.16			97.72	amphibole
W21	SITE 2 O	52.15		3.45	17.61	0.29	11.42	11.96			96.88	amphibole
W21	SITE 2 P	50.95	0.28	4.53	17.99	0.29	10.76	12.07	0.51		97.56	amphibole
W21	SITE 1 Q	52.22		3.01	16.96	0.33	12.15	12.01	0.38		97.07	amphibole
W21	SITE 2 R	52.00	0.43	3.19	17.22		11.91	12.14	0.44		97.33	amphibole
W21	SITE 2 S		52.32		43.47	3.27					99.06	rutile
W21	SITE 2 T		52.18		43.24	3.50					98.93	rutile

Appendix 2b: Upper Congo Granitic Massif: Undifferentiated lithologies EDS data

Table 1: Sample W10

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_3 wt%	CoO wt%	SrO wt%	BaO wt%	Total	Mineral
W10	1-a	105.93														105.93	Quartz
W10	1-b	104.54														104.54	Quartz
W10	1-c	69.74		19.16				0.61		11.47						100.97	plagioclase
W10	1-d	69.50		19.31				0.79		11.43						101.02	plagioclase
W10	1-e	70.18		19.17				0.35		11.46						101.16	plagioclase
W10	1-f	64.18		22.04				4.12		9.45						99.78	plagioclase
W10	1-g	65.88		18.05					14.93	0.62					0.72	100.19	K-feldspar
W10	1-h	65.69	0.34	17.70					14.98	0.60						99.30	K-feldspar
W10	2-i	65.69		18.06					15.09	0.54					1.20	100.58	K-feldspar
W10	1-j	48.84	1.21	6.24	15.15	0.44	12.83	11.48	0.71	1.42						98.33	amphibole
W10	1-k	50.40	0.63	5.60	15.35	0.35	12.98	11.71	0.50	1.06						98.59	amphibole
W10	1-l	47.65	1.19	6.18	15.39	0.42	12.26	11.32	0.61	1.35						96.36	amphibole
W10	1-n				90.18							0.63	0.58			91.38	Fe-oxide
W10	1-o	4.76			75.24											80.01	Fe-oxide
W10	1-p	32.02	37.34	2.34	0.50			28.81								101.02	Sphene
W10	1-q	31.28	37.98	1.26	0.77			28.43								99.72	Sphene
W10	1-r	47.18		27.40	5.67		2.45		10.50							93.20	Al-celadonite
W10	1-s	65.51		17.69					15.34	0.41						98.94	K-feldspar
W10	2-a	104.57														104.57	Quartz
W10	2-b	104.83														104.83	Quartz
W10	2-c	70.42		19.02				0.30		11.69						101.42	plagioclase
W10	2-d	69.62		19.45				0.38	0.36	11.51						101.32	plagioclase
W10	2-e	68.45		20.08				1.27		11.27						101.07	plagioclase
W10	2-f	68.10		20.60				1.78		10.80						101.29	plagioclase
W10	2-g	48.10	1.27	6.89	16.12	0.37	12.43	11.42	0.80	1.65						99.07	amphibole
W10	2-h	39.22	1.11	14.62	16.78	0.35	13.64		9.48							95.20	Al-celadonite

Table 1: Sample W10; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Cr_2O_3 wt%	CoO wt%	SrO wt%	BaO wt%	Total	Mineral
W10	2-i	47.83	1.35	6.93	16.35	0.39	11.92	11.66	0.75	1.34						98.50	amphibole
W10	2-i2	48.34	1.04	6.69	16.57	0.43	12.17	11.92	0.62	1.22						99.00	amphibole
W10	2-j	48.25	1.44	6.58	15.62	0.43	12.50	11.44	0.68	1.37						98.31	amphibole
W10	2-k	66.31		18.14					15.01	0.62						100.08	K-feldspar
W10	2-l	66.64		17.71					15.86	0.35						100.55	K-feldspar
W10	2-m	65.64		18.01					15.19	0.40					0.65	99.88	K-feldspar
W10	2-n	31.31	36.98	1.50	1.38			28.15								99.33	amphibole
W10	2-o	0.44						55.29			40.58					96.30	Ca-phosphate
W10	2-p	37.67		19.19	15.69	0.37		19.43						5.30		97.65	amphibole
W10	2-q	39.01		22.65	11.92			22.78								96.37	amphibole
W10	2-q2	46.54		36.07	0.58				9.92	0.56						93.68	Al-celadonite
W10	2-r	47.47		24.42	5.76		2.84		10.46							90.95	Al-celadonite
W10	2-s	49.23		25.60	7.03		3.19		10.55							95.60	Al-celadonite

Table 2: Sample WP07

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	V_2O_5 wt%	Cr_2O_3 wt%	BaO wt%	HfO_2 wt%	Total	Mineral
WP07	1-a	68.34		19.13				0.55		11.84						99.87	Plagioclase
WP07	1-b	102.15														102.15	Quartz
WP07	1-c	102.14														102.14	Quartz
WP07	1-d	102.26														102.26	Quartz
WP07	1-e	67.85		19.26				0.36	0.49	11.52						99.48	plagioclase
WP07	1-f	69.09		19.09				0.34		11.90						100.42	plagioclase
WP07	1-g	68.29		19.11				0.52		11.83						99.75	plagioclase
WP07	1-h	69.29		18.98				0.26		11.97						100.50	plagioclase
WP07	1-i	68.39		18.83				0.46		11.85						99.53	Plagioclase
WP07	1-j	46.28	1.29	7.01	15.99	0.31	11.76	11.32	0.74	1.50						96.21	Al-celadonite
WP07	1-k	46.16	1.29	6.93	16.50	0.39	11.34	11.24	0.76	1.40						96.01	Al-celadonite
WP07	1-l	46.62	1.57	6.89	14.76	0.29	12.39	11.18	0.71	1.70						96.11	Al-celadonite
WP07	1-m	46.85	1.51	6.98	16.20	0.47	11.70	11.37	0.69	1.29						97.05	Al-celadonite
WP07	1-n	47.93		24.53	5.59		3.05		10.22					0.83		92.14	Epidote
WP07	1-o	45.42		23.86	8.35		4.81		9.96							92.41	Epidote
WP07	1-p	50.11		23.98	4.00		3.15		9.83					0.56		91.63	Epidote
WP07	1-q	37.84		21.04	13.37			22.07								94.32	amphibole
WP07	1-r	38.40		23.49	10.24			22.65								94.78	amphibole
WP07	1-s							53.95			39.57					93.52	Ca-phosphate
WP07	1-t							53.13			38.46					91.59	Ca-phosphate
WP07	2-a	68.25		18.83				0.41		12.05						99.53	plagioclase
WP07	2-b	101.64														101.64	Quartz
WP07	2-c	103.63														103.63	Quartz
WP07	2-d	103.64														103.64	Quartz
WP07	2-e	68.30		18.97				0.65		11.72						99.64	plagioclase
WP07	2-f	68.27		18.92				0.64		11.74						99.56	plagioclase

Table 2: Sample WP07; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	V_2O_5 wt%	Cr_2O_3 wt%	BaO wt%	HfO_2 wt%	Total	Mineral
WP07	2-g	69.02		18.52						12.01						99.55	plagioclase
WP07	2-h	68.18		19.20				0.78		11.75						99.91	plagioclase
WP07	2-i	68.86		18.49						12.14						99.49	plagioclase
WP07	1-j	46.51	1.35	6.72	16.73	0.38	11.19	11.13	0.78	1.27						96.07	Al-celadonite
WP07	2-k	46.94	0.77	6.35	15.67	0.45	12.28	11.12	0.62	1.41						95.61	Al-celadonite
WP07	2-l	46.16	1.16	6.88	16.81	0.38	11.22	11.66	0.65	1.05						95.98	Al-celadonite
WP07	2-m	64.02		17.74					14.62	0.43				1.15		97.97	K-feldspar
WP07	2-n	47.20		23.62	6.43		3.43		10.16							90.86	Epidote
WP07	2-o	48.11		24.21	5.44		3.18		10.12					0.61		91.67	Epidote
WP07	2-p	39.24	0.57	14.05	16.41		14.04		9.06							93.37	amphibole
WP07	2-q	37.43		22.07	11.81			21.96								93.27	amphibole
WP07	2-r							52.93			38.59					91.52	Ca-phosphate
WP07	2-s							53.54			38.88					92.42	Ca-phosphate
WP07	2-t				90.73							0.38	0.39			91.50	Fe-oxide

Table 3: Sample H4

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	CoO wt%	BaO wt%	HfO_2 wt%	Total	Mineral
H4	1-a	67.06		18.01					15.64	0.52				101.23	K-feldspar
H4	1-b	66.26		17.85					15.42	0.60				100.13	K-feldspar
H4	1-c	66.22		18.06					14.91	0.52		1.00		100.70	K-feldspar
H4	1-d	66.16		17.80					15.55	0.37				99.88	K-feldspar
H4	1-e	66.01		17.72					15.45	0.39				99.57	K-feldspar
H4	1-f	103.72												103.72	Quartz
H4	1-g	68.62		18.96				0.47		11.65				99.71	plagioclase
H4	1-h	69.83		19.16				0.37		11.77				101.12	plagioclase
H4	1-i	34.78	1.52	16.18	28.39	0.34	4.13	0.48	7.90					93.74	Al-celadonite
H4	1-j	36.11	1.67	15.89	28.09	0.47	4.32		8.66					95.22	Al-celadonite
H4	1-k	24.45		18.21	37.72	0.70	5.22							86.31	chlorite
H4	1-l	35.13	1.57	16.45	28.34	0.40	3.88		8.75					94.51	Al-celadonite
H4	1-m	38.98		24.94	8.86			23.04						95.82	Epidote
H4	1-n	38.25		22.41	12.13			22.87						95.66	Epidote
H4	1-o	38.69		24.97	9.02			23.23						95.90	Epidote
H4	1-p	32.83												97.54	zircon
H4	1-q	32.75												97.40	zircon
H4	1-r	33.19											1.15	98.53	zircon
H4	1-r	39.58		25.05	9.31			23.30						97.23	amphibole
H4	2-a	103.51												103.51	Quartz
H4	2-b	103.46												103.46	Quartz
H4	2-c	65.90		17.92					15.48	0.51				99.81	K-feldspar
H4	2-d	65.49		17.66					15.16	0.57				98.88	K-feldspar
H4	2-e	66.30		17.86					15.11	0.49				99.75	K-feldspar
H4	2-f	66.02		17.59					15.39	0.38				99.37	K-feldspar
H4	2-g	69.97		19.44				0.63		11.68				101.71	plagioclase

Table 3: Sample H4; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	CoO wt%	BaO wt%	HfO_2 wt%	Total	Mineral
H4	2-h	69.79		19.36				0.64		11.66				101.46	plagioclase
H4	2-i	68.27		20.80				1.97		10.84				101.89	plagioclase
H4	2-j	69.91		19.16				0.54		11.41				101.03	plagioclase
H4	2-k	35.98	1.64	16.12	29.09	0.38	4.39		8.00					95.61	Al-celadonite
H4	2-l	36.60	1.67	16.49	28.21	0.33	4.38	0.69	7.82		0.06			96.25	Al-celadonite
H4	2-m	35.13	1.57	16.06	28.39	0.31	4.28		8.49					94.22	Al-celadonite
H4	2-n	39.35		24.64	9.97			22.88						96.84	amphibole
H4	2-o	38.72		24.61	9.81			23.14						96.28	amphibole
H4	2-p	35.94	1.94	16.43	27.52	0.38	4.19		8.57					94.98	Al-celadonite
H4	2-q	40.53		31.80	1.13			24.55						98.01	amphibole
H4	2-r	32.15			0.58									94.80	zircon
H4	2-s	32.96	1.97	14.13	28.13	0.37	3.65		8.80					90.02	Al-celadonite

Appendix 2b: Upper Congo Granitic Massif: Wasta-B Lithologies EDS data

Table 1: Sample W2

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	BaO wt%	Total	Mineral
W2	SITE 1 A	99.85											99.85	Quartz
W2	SITE 1 B	102.81											102.81	Quartz
W2	SITE 1 C	69.54		18.85				0.22		11.44			100.05	plagioclase
W2	SITE 1 D	69.85		18.83						11.90			100.58	plagioclase
W2	SITE 1 E	68.44		19.88				1.19		11.15			100.67	plagioclase
W2	SITE 1 F	69.21		18.84				0.55		11.47			100.06	plagioclase
W2	SITE 1 G	69.36		19.06				0.22		11.82			100.46	plagioclase
W2	SITE 1 H	69.58		18.63						11.19			99.40	plagioclase
W2	SITE 1 I	38.88	1.07	14.15	18.92		12.33		9.40				94.74	amphibole
W2	SITE 1 J	37.50	0.95	13.80	19.39	0.33	11.89		9.27				93.13	amphibole
W2	SITE 1 K	65.06	0.37	17.57					15.12				98.12	K-feldspar
W2	SITE 1 L	66.16		17.67					15.35				99.19	K-feldspar
W2	SITE 1 M	64.90		17.57					15.03	0.35		0.84	98.69	K-feldspar
W2	SITE 1 N	64.74		17.64					14.93	0.36			97.67	K-feldspar
W2	SITE 1 O	39.63	0.91	13.47	18.37		12.86		9.27				94.51	Al-celadonite
W2	SITE 1 P	48.73		24.86	5.01		2.80		9.96			0.93	92.28	Al-celadonite
W2	SITE 1 Q	48.62		24.84	3.26		2.75		10.11				89.57	Al-celadonite
W2	SITE 1 R	50.37		25.37	4.65		3.17		10.60				94.16	Al-celadonite
W2	SITE 1 T	38.61		21.73	13.16	0.35		22.12					95.97	amphibole
W2	SITE 2 A	103.06											103.06	Quartz
W2	SITE 2 B	104.16											104.16	Quartz
W2	SITE 2 C	67.53		19.63				1.36		10.83			99.34	plagioclase
W2	SITE 2 D	69.37		18.83						11.63			99.82	plagioclase
W2	SITE 2 E	69.53		19.11				0.53		11.48			100.65	plagioclase
W2	SITE 2 F	69.18		19.01				0.52		11.62			100.33	plagioclase
W2	SITE 2 G	69.21		19.12				0.59		11.63			100.56	plagioclase

Table 1: Sample W2; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	BaO wt%	Total	Mineral
W2	SITE 2 H	69.22		18.82						12.07			100.11	plagioclase
W2	SITE 2 I	69.94		18.66						12.08			100.68	plagioclase
W2	SITE 2 J	69.40		18.81					0.27	11.69			100.18	plagioclase
W2	SITE 2 K	68.85		19.36				0.83		11.47			100.51	plagioclase
W2	SITE 2 L	66.94		17.53					15.84	0.33			100.64	plagioclase
W2	SITE 1 M	65.86		17.61					15.54				99.01	amphibole
W2	SITE 2 N	50.07	1.16	5.33	12.59	0.32	14.76	11.22	0.60	1.55			97.60	amphibole
W2	SITE 2 O	37.97	1.01	14.00	18.69	0.37	12.11		9.10				93.25	epidote
W2	SITE 2 P	37.58		19.98	14.55			21.80					93.91	Ca-phosphate
W2	SITE 2 R	0.78						54.05			39.21		94.04	K-feldspar
W2	SITE 2 S	66.05		17.91					15.06	0.68		0.60	100.30	plagioclase
W2	SITE 2 T	37.21		20.03	14.40			22.25					93.89	epidote

Table 2: Sample W8

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	CoO wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
W8	SITE 1 A	63.00		22.82				4.79		8.94					99.54	plagioclase
W8	SITE 1 B	103.34													103.34	Quartz
W8	SITE 1 C	102.66													102.66	Quartz
W8	SITE 1 D	103.94													103.94	Quartz
W8	SITE 1 E	69.65		19.06				0.54		11.52					100.78	plagioclase
W8	SITE 1 F	69.89		18.93				0.44		11.47					100.73	plagioclase
W8	SITE 1 G	68.99		19.16				0.56		11.26					99.97	plagioclase
W8	SITE 1 H	66.20		21.36				3.35		9.94					100.85	plagioclase
W8	SITE 1 I	39.57		21.08	12.09			22.02							94.76	epidote
W8	SITE 1 J	46.08		24.92	6.61		3.13		10.28						91.01	Al-celadonite
W8	SITE 1 K	65.22		17.75					14.99	0.63				1.33	99.93	K-feldspar
W8	SITE 1 L	65.26		18.06					14.71	0.55				1.63	100.20	K-feldspar
W8	SITE 1 M	38.86	1.40	14.47	17.09	0.31	12.52		9.28						93.91	amphibole
W8	SITE 1 N	48.86	1.24	6.16	15.07	0.49	12.89	11.63	0.66	1.34					98.34	amphibole
W8	SITE 1 O	38.52		21.46	13.35	0.36		22.63							96.32	epidote
W8	SITE 1 P	66.72		17.91					15.28	0.67					100.58	K-feldspar
W8	SITE 1 Q	66.70		18.18					15.63	0.43					100.94	K-feldspar
W8	SITE 1 R	48.83		25.77	5.14		2.91		10.43						93.08	Al-celadonite
W8	SITE 1 S	47.84		25.44	5.98		2.81		10.26						92.33	Al-celadonite
W8	SITE 1 T	30.59		0.59	0.99								60.32		92.49	zircon
W8	SITE 2 A	104.32													104.32	Quartz
W8	SITE 2 B	105.04													105.04	Quartz
W8	SITE 2 C	104.90													104.90	Quartz
W8	SITE 2 D	103.82													103.82	Quartz
W8	SITE 2 E	68.25		19.61	0.36			0.36	0.67	10.99					100.26	plagioclase
W8	SITE 2 F	68.20		19.07				0.70		10.98					98.95	plagioclase

Table 2: Sample W8; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	CoO wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
W8	SITE 2 G	69.04		18.58						11.45					99.07	plagioclase
W8	SITE 2 H	62.52		22.71				5.06		8.94					99.21	plagioclase
W8	SITE 2 I	65.74		21.98				3.72		9.80					101.23	plagioclase
W8	SITE 2 J	64.89		21.33				3.68		9.65					99.56	plagioclase
W8	SITE 2 K	64.76		21.57				3.63		9.47					99.43	plagioclase
W8	SITE 2 L	47.50		24.90	5.24		2.50	3.54	8.48						92.16	Al-celadonite
W8	SITE 2 M	47.18		25.69	6.15		3.01		10.38						92.41	Al-celadonite
W8	SITE 2 N	49.28		28.60	2.24		2.28		10.49						92.89	Al-celadonite
W8	SITE 2 O	52.26		27.15	4.53		2.94		10.45						97.33	Al-celadonite
W8	SITE 2 P	37.34		18.80	16.85			22.30							95.29	sphene
W8	SITE 2 Q	47.72	1.17	6.61	15.38	0.45	12.46	11.72	0.76	1.25					97.51	amphibole
W8	SITE 2 R	37.78		20.96	13.37			22.25							94.35	epidote
W8	SITE 2 S	65.93		17.62					15.24	0.54					99.33	K-feldspar
W8	SITE 2 T				91.00							0.33			91.71	Fe-oxide

Table 3: Sample WP06

Sample	Analysis	SiO_2	TiO_2	AlO_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	ZrO_2	BaO	Total	Mineral
		wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%		
WP06	SITE 1 A	102.33												102.33	Quartz
WP06	SITE 1 B	101.45												101.45	Quartz
WP06	SITE 1 C	101.27												101.27	Quartz
WP06	SITE 1 D	100.72												100.72	Quartz
WP06	SITE 1 E	68.08		18.74				0.36		11.67				98.85	plagioclase
WP06	SITE 1 F	68.53		18.12						11.80				98.44	plagioclase
WP06	SITE 1 G	67.87		18.66				0.46		11.59				98.58	plagioclase
WP06	SITE 1 H	64.22		21.13	0.32			3.67		9.69				99.02	plagioclase
WP06	SITE 1 I	37.77		21.33	12.03			21.32						92.45	epidote
WP06	SITE 1 J	48.07		24.47	5.23		2.98		10.14				0.54	91.44	chlorite
WP06	SITE 1 K	38.27		14.69	16.74		12.49		8.30					90.49	chlorite
WP06	SITE 1 L	47.07		26.01	5.45		2.55		10.15				0.69	91.92	chlorite
WP06	SITE 1 M	63.90		17.41					14.77	0.47			0.81	97.35	K-feldspar
WP06	SITE 1 N	64.11		17.27					14.87	0.46			0.60	97.30	K-feldspar
WP06	SITE 1 O	47.50	0.88	5.97	14.65	0.42	12.47	11.40	0.62	1.04				94.95	amphibole
WP06	SITE 1 P	48.52	1.09	5.24	13.80	0.38	13.48	11.28	0.55	1.10				95.44	amphibole
WP06	SITE 1 Q	49.32	1.14	5.51	12.86	0.34	14.03	11.18	0.54	1.27				96.18	amphibole
WP06	SITE 1 R	26.84		17.99	22.70	0.44	16.25							84.23	chlorite
WP06	SITE 1 S	31.80										63.12		94.92	zircon
WP06	SITE 1 T	31.29										62.13		93.42	zircon
WP06	SITE 2 A	67.87		18.81				0.38		11.49				98.54	plagioclase
WP06	SITE 2 B	101.68												101.68	Quartz
WP06	SITE 2 C	67.70		19.14				0.56		11.70				99.10	plagioclase
WP06	SITE 2 D	101.67												101.67	Quartz
WP06	SITE 2 E	101.59												101.59	Quartz
WP06	SITE 2 E2	68.11		18.77				0.43		11.76				99.06	plagioclase

Table 3 : Sample WP06; continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
WP06	SITE 2 F	66.46		19.53	0.33			1.06	0.50	10.99				98.87	plagioclase
WP06	SITE 2 G	69.25		19.14				0.60		11.63				100.63	plagioclase
WP06	SITE 2 H	66.31		20.40				2.16		10.55				99.43	plagioclase
WP06	SITE 2 I							53.97			39.64			93.60	Ca-phosphate
WP06	SITE 2 J	49.77	1.10	5.47	14.17	0.43	13.59	11.69	0.60	1.15				97.96	amphibole
WP06	SITE 2 K	48.50	1.05	5.71	14.60	0.43	12.96	11.58	0.56	1.35				96.74	amphibole
WP06	SITE 2 L	48.85	0.94	5.66	14.23	0.40	13.26	11.54	0.59	1.19				96.66	amphibole
WP06	SITE 2 M	64.71		17.34					15.29	0.36			0.74	98.44	K-feldspar
WP06	SITE 2 N	65.20	0.39	17.59					15.07	0.44				98.68	K-feldspar
WP06	SITE 2 O	47.56	0.30	25.25	6.27		2.69		9.95	0.69				92.70	Al-celadonite
WP06	SITE 2 P	48.15		25.87	5.34		2.67		9.79				0.93	92.75	Al-celadonite
WP06	SITE 2 Q	37.85		21.86	12.22			22.34						94.27	chlorite
WP06	SITE 2 R	38.27		22.40	12.20			22.49						95.37	epidote
WP06	SITE 2 S	38.27		22.30	11.38			20.31	0.86					93.12	epidote
WP06	SITE 2 T	38.60		22.01	12.72			22.72						96.05	epidote

Table 4: Sample W13

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Total	Mineral
W13	1-a	105.56										105.56	Quartz
W13	1-b	105.06										105.06	Quartz
W13	1-c	69.31		19.20				0.54		11.65		100.69	plagioclase
W13	1-d	69.72		19.01				0.40		11.79		100.92	plagioclase
W13	1-e	70.14		18.91				0.21		11.85		101.11	plagioclase
W13	1-f	69.86		19.12				0.43		11.85		101.26	plagioclase
W13	1-g	49.70	0.59	5.10	14.91	0.43	12.92	11.76	0.51	0.87		96.77	amphibole
W13	1-h	55.36		1.76	11.12	0.39	16.28	12.75				97.65	amphibole
W13	1-i	57.12		1.59	10.92	0.36	16.99	12.55		0.44		99.97	amphibole
W13	1-j	39.40	1.21	14.17	17.90		13.03		9.36			95.08	Al-celadonite
W13	1-k	39.53	1.08	14.29	17.33	0.33	13.39		9.61			95.56	Al-celadonite
W13	1-l	48.90	1.15	6.59	15.90	0.52	12.54	11.89	0.70	1.04		99.21	amphibole
W13	1-m	38.35		20.93	14.39			22.35				96.02	amphibole
W13	1-n	31.49	35.17	2.59	1.78			28.84				99.87	Sphene
W13	1-o	48.84	0.47	25.11	5.25		2.89		10.20			92.77	Al-celadonite
W13	1-p	50.56		24.45	4.81		3.24		10.56			93.62	Al-celadonite
W13	1-q	50.84		25.11	5.30		3.15		10.53			94.92	Al-celadonite
W13	1-r	50.91	0.55	26.09	5.28		3.15		10.15			96.13	Al-celadonite
W13	1-s	49.50		25.49	5.20		2.80		10.12			93.11	Al-celadonite
W13	2-a	102.58										102.58	Quartz
W13	2-b	103.16										103.16	Quartz
W13	2-c	70.22		19.04				0.29		11.88		101.43	plagioclase
W13	2-d	69.90		19.08				0.50		11.73		101.20	plagioclase
W13	2-e	69.77		19.44				0.74		11.19		101.14	plagioclase
W13	2-f	69.77		19.28				0.41		11.60		101.05	plagioclase
W13	2-g	70.69		18.91						11.91		101.50	plagioclase

Table 4: Sample W13; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	P_2O_5 wt%	Total	Mineral
W13	2-h	70.11		19.06				0.23		11.69		101.10	plagioclase
W13	2-i	0.61						54.83			40.44	95.89	Ca-phosphate
W13	2-j	30.21	36.17	1.30	1.89			26.84				96.40	Sphene
W13	2-k	38.94	0.36	23.07	10.64			23.19				96.20	amphibole
W13	2-l	38.81		22.14	13.15			22.39				96.49	amphibole
W13	2-m	38.81		22.12	12.56			22.69				96.17	amphibole
W13	2-n	50.17	1.15	5.72	12.62		14.15	11.27	0.60	1.43		97.12	Al-celadonite
W13	2-o	52.33		25.19	5.11		3.46		10.69			96.78	Al-celadonite
W13	2-p	49.58		24.47	5.02		2.95		10.75			92.77	Al-celadonite
W13	2-q	65.74	0.37	17.98					15.30	0.49		99.88	Al-celadonite
W13	2-r	51.92		25.79	5.23		3.25		10.73			96.91	Al-celadonite
W13	2-s	52.23		24.95	4.72		3.44		10.49			95.82	Al-celadonite

Appendix 2b: Upper Congo Granitic Massif: Watsa-A lithologies EDS data

Table 1: Sample WP03

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	V_2O_5 wt%	Cr_2O_5 wt%	CoO wt%	Total	Mineral
WP03	SITE 1 A	54.34		27.77	0.33			11.22	0.24	4.86				98.77	plagioclase
WP03	SITE 1 B	55.26		27.29				10.87		5.30				98.72	plagioclase
WP03	SITE 1 C	56.56		26.56	0.31			9.68		6.00				99.11	plagioclase
WP03	SITE 1 D	61.17			7.33		25.49							93.99	amphibole
WP03	SITE 1 E	38.69		22.91	12.41	0.51		22.10						96.62	amphibole
WP03	SITE 1 F	38.97		21.76	13.23			22.87						96.84	amphibole
WP03	SITE 1 G							53.17						92.12	Ca-phosphate
WP03	SITE 1 H							53.75						93.10	Ca-phosphate
WP03	SITE 1 I							53.10						92.28	Ca-phosphate
WP03	SITE 1 J	40.09		29.10	3.97			23.55						96.72	amphibole
WP03	SITE 1 K	39.71		29.55	3.80			23.76						96.82	amphibole
WP03	SITE1 L	53.56	0.42	1.69	7.82	0.37	14.78	21.71		0.53				100.88	pyroxene
WP03	SITE 1 M	54.13		1.55	7.58		14.36	21.96		0.55				100.14	pyroxene
WP03	SITE 1 N	53.53	0.56	2.26	8.42		14.25	21.58		0.50				101.10	pyroxene
WP03	SITE 1 O	53.44	0.35	1.79	7.95		14.49	22.06		0.48				100.56	pyroxene
WP03	SITE 1 P	43.53	3.17	9.95	12.51		12.99	11.27	0.86	2.00				96.28	amphibole
WP03	SITE 1 Q	55.21		28.33	0.34			11.36	0.22	4.87				100.33	plagioclase
WP03	SITE 1 R				89.47						0.45	1.17		91.08	Fe-oxide
WP03	SITE 1 S				91.15							1.34		92.49	Fe-oxide
WP03	SITE 1 T	52.93		4.83	12.43	0.41	15.47	11.78		0.90				98.75	amphibole
WP03	SITE 2 A	61.04		1.36	7.18		25.46							95.04	chlorite
WP03	SITE 2 B	54.49		28.48				12.08	0.20	4.64				99.89	plagioclase
WP03	SITE 2 C	56.04		27.34	0.32			10.39	0.33	5.47				99.88	plagioclase
WP03	SITE 2 D	56.84		26.72	0.38			9.54	0.28	6.03				99.79	plagioclase
WP03	SITE 2 E	60.73	0.72	1.67	7.71		25.40			0.45				96.69	chlorite

Table 1: Sample WP03; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	V_2O_5 wt%	Cr_2O_5 wt%	CoO wt%	Total	Mineral
WP03	SITE 2 F	61.09		1.90	7.29		25.29			0.53				96.09	chlorite
WP03	SITE 2 G	57.65		26.30	0.28			9.32	0.26	6.22				100.03	plagioclase
WP03	SITE 2 H	60.57		1.10	6.89		25.32							93.88	chlorite
WP03	SITE 2 I	53.52		1.46	7.76		14.66	21.67		0.47				99.56	pyroxene
WP03	SITE 2 J	52.99	0.54	2.01	7.77		14.22	21.86		0.61				100.00	pyroxene
WP03	SITE 2 K	44.54	2.75	9.04	12.25		13.20	11.24	0.85	1.84				95.70	amphibole
WP03	SITE 2 L	53.00	0.41	1.96	7.60	0.31	14.19	21.46		0.45				99.38	pyroxene
WP03	SITE 2 M	53.51		1.64	19.18	0.38	22.44	2.62				0.39		100.16	pyroxene
WP03	SITE 2 N	48.35	1.70	7.63	11.54		15.33	11.41	0.68	1.32				97.96	amphibole
WP03	SITE 2 O	0.57						53.26						92.61	Ca-phosphate
WP03	SITE 2 P							53.52						92.26	Ca-phosphate
WP03	SITE 2 Q				90.35						0.54	0.84		91.73	Fe-oxide
WP03	SITE 2 R				88.29						0.65	0.90		89.84	Fe-oxide
WP03	SITE 2 S		20.24		70.51	1.18								91.93	Fe-oxide
WP03	SITE 2 T	48.86	1.13	6.69	10.26		15.56	11.55	0.53	1.11				95.70	amphibole

Table 2: Sample WP03 (Secondary analyses)

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	V_2O_5 wt%	Cr_2O_5 wt%	CoO wt%	Total	Mineral
WP03	1-a	54.05		1.55	18.44	0.49	23.15	3.00						100.69	pyroxene
WP03	1-b	54.90		1.20	19.75	0.51	24.30	0.63						101.29	pyroxene
WP03	1-c	54.82		0.95	19.25	0.53	24.04	1.03					0.17	100.79	pyroxene
WP03	1-d	54.77			19.61	0.52	24.10	0.75						99.75	pyroxene
WP03	1-e	54.11		1.52	7.70		14.45	21.91		0.49				100.18	amphibole
WP03	1-f	45.99	2.78	9.08	12.81		13.99	11.49	0.79	1.90				98.83	amphibole
WP03	1-g	45.07	3.15	10.14	12.60		13.49	11.65	0.97	1.96				99.04	amphibole
WP03	1-h	54.32		1.91	8.21		14.68	22.13						101.26	amphibole
WP03	1-i	57.20		27.62				10.79	0.23	5.64				101.49	plagioclase
WP03	1-j	63.23		1.55	6.84		27.21		0.16					98.99	plagioclase
WP03	1-k	64.03			7.01		27.01							98.04	plagioclase
WP03	1-l	61.48		2.78	8.44		25.61		0.25	0.77				99.35	plagioclase
WP03	1-m	57.00		27.54				10.49	0.30	5.69				101.02	plagioclase
WP03	1-n	39.32		23.11	12.52			22.94						97.89	ca-mica
WP03	1-o	39.49		25.25	9.51	0.51		22.45						97.20	ca-mica
WP03	1-p	39.50		21.41	13.55		0.48	22.34						97.29	ca-mica
WP03	1-q				91.30						0.61	1.02		92.94	Fe-oxide
WP03	1-r	45.59	3.06	9.88	12.56		13.89	11.56	0.67	2.05				99.26	amphibole
WP03	1-s	0.79			89.51									90.31	Fe-oxide
WP03	1-a	55.16		1.10	19.92		24.25	0.69						101.12	pyroxene
WP03	2-b	54.50		1.11	21.31		23.18	0.97						101.08	pyroxene
WP03	2-c	54.97		1.14	20.54		23.58	0.99						101.22	pyroxene
WP03	2-d	62.69		1.42	6.80		26.55							97.45	pyroxene
WP03	2-e	63.28		1.17	6.59		27.05							98.10	pyroxene
WP03	2-f	63.29		2.04	7.64		26.84			0.64				100.45	plagioclase

Table 2: Sample WP03 (Secondary analyses); Continued

Sample	Analysis	SiO_2	TiO_2	AlO_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	V_2O_5	Cr_2O_5	CoO	Total	Mineral
		wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%		
WP03	2-g	56.44		28.25				11.07	0.34	5.36				101.46	plagioclase
WP03	2-h	56.54		27.87				10.90	0.31	5.36				100.98	plagioclase
WP03	2-i	54.40		29.45				12.57		4.48				100.91	plagioclase
WP03	2-j	57.87		26.50				9.65	0.36	6.01				100.40	plagioclase
WP03	2-k	47.30	2.35	8.78	12.83		14.10	11.63	0.83	1.75				99.56	amphibole
WP03	2-l	45.36	3.09	10.17	12.42		13.87	11.39	0.82	2.08				99.20	amphibole
WP03	2-m	45.38	3.04	10.08	13.01		13.75	11.48	0.81	2.05				99.60	amphibole
WP03	2-n	54.47		1.94	8.42		15.32	20.74		0.47				101.36	amphibole
WP03	2-o	57.60		1.56	9.17	0.48	18.58	12.36						99.76	amphibole
WP03	2-p	53.90		4.86	9.38		18.14	11.96	0.24	0.88				99.36	amphibole
WP03	2-q		52.03		44.77	3.16								99.96	rutile
WP03	2-r				91.63						0.55	0.47		92.64	Fe-oxide

Table 3: Sample W5

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	V_2O_5 wt%	Cr_2O_5 wt%	CoO wt%	Total	Mineral
W5	SITE 1 A	55.13		27.53				11.33	0.23	5.02				99.24	plagioclase
W5	SITE 1 B	54.66		28.84	0.30			12.74	0.20	4.45				101.20	plagioclase
W5	SITE 1 C	56.22		26.81				10.51	0.33	5.64				99.51	plagioclase
W5	SITE 1 D	56.57		27.45				11.21	0.30	5.27				100.80	plagioclase
W5	SITE 1 E	57.92		26.70				9.91	0.38	5.86				100.77	plagioclase
W5	SITE 1 F	56.72		27.52				10.67	0.30	5.54				100.76	plagioclase
W5	SITE 1 G	52.78	0.34	1.45	10.90		12.77	21.39		0.47				100.10	amphibole
W5	SITE 1 H	53.03		1.49	11.59	0.32	12.81	21.10						100.35	amphibole
W5	SITE 1 I	52.63	0.40	1.55	11.34	0.31	12.83	20.77						99.83	amphibole
W5	SITE 1 J	52.63		1.37	10.59	0.30	12.65	21.43						98.97	amphibole
W5	SITE 1 K	52.98		1.18	10.90		12.96	21.26						99.29	amphibole
W5	SITE 1 L	52.25		1.37	10.71		12.56	21.62						98.52	amphibole
W5	SITE 1 M	52.77	0.46	1.44	10.56	0.32	12.69	21.57		0.53				100.33	amphibole
W5	SITE 1 N	52.69			26.33	0.49	18.60	0.71						98.81	pyroxene
W5	SITE 1 O	52.50			26.56	0.58	18.70	0.69						99.03	pyroxene
W5	SITE 1 P	53.20			26.47	0.61	18.96	0.71						99.94	pyroxene
W5	SITE 1 Q	52.25			26.54	0.60	18.67	0.86						98.92	pyroxene
W5	SITE 1 R	52.42		0.84	26.59	0.49	18.87	0.89						100.11	pyroxene
W5	SITE 1 S				89.58						1.35	0.70	0.22	91.85	Fe-oxide
W5	SITE 1 T		37.42		58.40	1.13								96.95	rutile
W5	SITE 2 A	55.55		27.79	0.29			11.80	0.30	5.06				100.79	plagioclase
W5	SITE 2 B	55.33		27.59				11.46	0.25	5.14				99.78	plagioclase
W5	SITE 2 C	55.19		27.83				11.27		5.25				99.53	plagioclase
W5	SITE 2 D	54.31		28.62	0.34			12.50		4.67				100.43	plagioclase
W5	SITE 2 E	55.79		28.52				12.02	0.20	4.99				101.52	plagioclase
W5	SITE 2 F	55.35		27.91	0.30			11.34	0.26	5.10				100.26	plagioclase

Table 3: Sample W5; Continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	AlO_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	V_2O_5 wt%	Cr_2O_5 wt%	CoO wt%	Total	Mineral
W5	SITE 2 G	53.24	0.46	1.27	11.16		12.71	21.35						100.19	amphibole
W5	SITE 2 H	53.17	0.36	1.63	11.06		12.77	21.68						100.67	amphibole
W5	SITE 2 I	53.11		1.56	11.57		12.84	20.97						100.05	amphibole
W5	SITE 2 J	53.22		1.45	11.01		12.75	21.55						99.99	amphibole
W5	SITE 2 K	53.10	0.43	1.33	11.30	0.32	12.93	20.54						99.93	amphibole
W5	SITE 2 L	53.82			27.18		19.34	0.87						101.21	pyroxene
W5	SITE 2 M	53.37		1.00	26.47		19.14	1.12						101.10	pyroxene
W5	SITE 2 N	53.59		0.73	26.51		19.40	0.77						101.01	pyroxene
W5	SITE 2 O	52.60		0.81	26.85	0.75	18.59	0.91						100.51	pyroxene
W5	SITE 2 P	56.68		1.32	15.53		15.35	11.44						100.32	pyroxene
W5	SITE 2 Q	42.38		27.18	6.02			22.76						98.35	amphibole
W5	SITE 2 R		0.66		92.07						0.86	0.55		94.14	Fe-oxide
W5	SITE 2 R2		0.65		92.24						0.80	0.56		94.24	Fe-oxide
W5	SITE 2 S				90.64						0.74	0.51		91.89	Fe-oxide
W5	SITE 2 T	39.95		25.48	8.21			24.64						98.27	amphibole

Appendix 2c: West Nile Gneiss EDS data

Table 1: Sample NZ03

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	ZrO_2 wt%	BaO wt%	La_2O_3 wt%	CeO_2 wt%	Nd_2O_3 wt%	HfO_2 wt%	ThO_2 wt%	Total	Mineral
NZ03	1-a	62.83		21.85				4.42		9.09								98.19	plagioclase
NZ03	1-b	62.79		21.96				4.50	0.33	9.26								98.84	plagioclase
NZ03	1-c	102.59																102.59	Quartz
NZ03	1-d	101.66																101.66	Quartz
NZ03	1-e	102.77																102.77	Quartz
NZ03	1-f	102.14																102.14	Quartz
NZ03	1-g	65.69		17.58					15.28	0.59								99.14	K-feldspar
NZ03	1-h	65.78		17.64					15.01	0.52								98.95	K-feldspar
NZ03	1-i	65.60		17.51					14.99	0.90								98.99	K-feldspar
NZ03	1-j	37.31	2.79	13.84	22.76		7.92		8.54									93.15	Al-celadonite
NZ03	1-j2	46.88	1.04	26.54	5.74		1.76		10.29									92.25	Al-celadonite
NZ03	1-k	36.61	3.38	14.22	23.86	0.40	7.33		9.17									94.97	Al-celadonite
NZ03	1-l	37.97		22.55	11.16			22.68										94.36	Epidote
NZ03	2-a	63.65		22.08				4.46	0.28	9.04								99.50	plagioclase
NZ03	2-b	103.28																103.28	Quartz
NZ03	2-c	65.70		17.96					15.26									98.92	K-feldspar
NZ03	2-d	52.17		24.04	4.22		2.00		8.39	0.46								91.29	Al-celadonite
NZ03	2-e							54.07										93.79	Ca-phosphate
NZ03	2-f	36.71	2.95	13.97	22.55	0.40	8.35		9.25									94.19	Al-celadonite
NZ03	2-f2	38.25		23.10	10.92	0.43		22.77										95.46	Epidote
NZ03	2-g	37.55	2.35	14.09	21.76	0.41	8.76		8.98									93.90	Al-celadonite
NZ03	2-h	36.64	3.09	14.50	22.64	0.37	7.69		9.02									93.94	Al-celadonite
NZ03	2-i	65.62		17.72					15.15	0.42								98.91	K-feldspar
NZ03	2-j	65.61		17.71					15.17	0.53								99.01	K-feldspar
NZ03	2-k	65.65		17.57					15.33	0.44								98.99	K-feldspar
NZ03	2-l	47.79	0.69	27.39	5.91		1.66		10.26	0.47								94.18	Al-celadonite
NZ03	2-m	37.01	2.32	14.29	22.91	0.49	8.49		9.21									94.73	Al-celadonite

Table 1: Sample NZ03; continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	ZrO_2 wt%	BaO wt%	La_2O_3 wt%	CeO_2 wt%	Nd_2O_3 wt%	HfO_2 wt%	ThO_2 wt%	Total	Mineral
NZ03	2-n	65.37		17.66					14.99	0.66								98.68	K-feldspar
NZ03	2-o	63.81		21.89				4.29	0.17	9.51								99.65	plagioclase
NZ03	2-p	64.26		22.28				4.64	0.26	9.19								100.64	plagioclase
NZ03	3-a	64.05		22.21				4.50	0.38	9.04								100.19	plagioclase
NZ03	3-b	64.00		22.07				4.20	0.21	9.34								99.81	plagioclase
NZ03	3-c	64.19		22.24				4.51	0.24	9.24								100.42	plagioclase
NZ03	3-d	64.62		21.84				4.16		9.45								100.07	plagioclase
NZ03	3-e	103.99																103.99	Quartz
NZ03	3-f	103.80																103.80	Quartz
NZ03	3-g	104.95																104.95	Quartz
NZ03	3-k	37.07	3.24	14.33	22.50	0.55	8.30		9.26									95.25	Al-celadonite
NZ03	3-i	37.35	3.03	14.30	22.27	0.40	7.90		8.70									93.95	Al-celadonite
NZ03	3-j	37.18	3.34	14.67	23.06	0.42	7.84		9.31									95.82	Al-celadonite
NZ03	3-k	37.09	2.78	14.15	24.19	0.38	8.01		9.49									96.08	Al-celadonite
NZ03	3-l	38.27		22.61	11.31	0.37		23.08										95.63	Epidote
NZ03	3-m	65.68		17.84					15.16	0.52								99.19	K-feldspar
NZ03	3-n	66.64		17.92					15.49	0.61		0.57						101.23	K-feldspar
NZ03	3-o	66.73		17.96					15.32	0.53								100.55	K-feldspar
NZ03	3-p	8.60		3.51	1.53			2.45					17.01	19.04	7.84			63.45	monazite
NZ03	3-q	5.78		3.26	2.06			2.07					16.26	19.91	6.84		7.16	64.33	monazite
NZ03	3-r	32.28									63.76							96.04	zircon
NZ03	3-s	30.03			1.06						57.83					0.34		89.26	zircon
NZ03	3-t	49.14		26.81	5.07		2.03		10.93									93.98	Al-celadonite
NZ03	3-u	48.32	1.03	27.06	5.17		1.95		10.36									93.88	Al-celadonite
NZ03	3-v	47.68	0.92	27.18	5.42		1.84		10.40									93.45	Al-celadonite

Table 2: Sample NZ06

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
NZ06	site 1 a	64.99		17.60					14.83	0.51		0.69	98.62	K-feldspar
NZ06	site 1 b	65.92		17.89					15.15	0.48			99.43	K-feldspar
NZ06	site 1 c	38.49		23.62	10.78			22.98					95.87	Epidote
NZ06	site 1 d	38.24		23.11	10.24			22.78					94.36	Epidote
NZ06	site 1 e	38.10		22.58	10.53			22.81					94.02	Epidote
NZ06	site 1 f	38.50		23.44	10.61			22.75					95.29	Epidote
NZ06	site 1 g	47.72	0.75	27.95	3.76		2.11		10.33				92.63	Al-celadonite
NZ06	site 1 h	49.11	1.02	24.74	4.22		2.92		10.39				92.40	Al-celadonite
NZ06	site 1 i	48.38	0.43	26.03	4.91		2.87		10.36				92.99	Al-celadonite
NZ06	site 1 j	47.51	0.56	26.61	4.22		2.42		10.17				91.49	Al-celadonite
NZ06	site 1 k	47.33	0.67	26.48	4.18		2.23		10.13				91.03	Al-celadonite
NZ06	site 1 l	48.01		26.82	4.30		2.47		10.13				91.73	Al-celadonite
NZ06	site 1 m	64.57		17.43					15.01	0.50		0.70	98.20	plagioclase
NZ06	site 1 n	64.92		17.53					15.09	0.33		0.82	98.71	plagioclase
NZ06	site 1 o	68.42		19.17				1.00		11.22			99.81	plagioclase
NZ06	site 1 p	103.51											103.51	Quartz
NZ06	site 1 q	102.71											102.71	Quartz
NZ06	site 1 r	102.66											102.66	Quartz
NZ06	site 1 s	69.22		18.93				0.54		11.63			100.32	plagioclase
NZ06	site 1 t	67.35		19.58				1.56		10.68			99.17	plagioclase
NZ06	site 2 a	65.70		17.76					15.13	0.58		0.42	99.58	K-feldspar
NZ06	site 2 b	66.35		17.93					15.24	0.48		0.59	100.60	K-feldspar
NZ06	site 2 c	69.04		19.37				0.86		11.43			100.70	plagioclase
NZ06	site 2 d	69.22		19.46				0.82		11.56			101.06	plagioclase
NZ06	site 2 e	65.82		17.93					15.06	0.54		0.74	100.09	K-feldspar
NZ06	site 2 f	66.70		17.94					15.09	0.47		0.65	100.84	K-feldspar
NZ06	site 2 g	66.36		17.58					15.51	0.42		0.81	100.68	K-feldspar
NZ06	site 2 h	65.56		17.71					15.36	0.45		0.50	99.57	K-feldspar
NZ06	site 2 i	65.23		17.44					15.16	0.42		0.60	98.85	K-feldspar
NZ06	site 2 j	38.84		23.02	10.95			22.96					95.78	Epidote
NZ06	site 2 k	39.44		24.06	10.75			23.37					97.63	Epidote

Table 2: Sample NZ06; continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	ZrO_2 wt%	BaO wt%	Total	Mineral
NZ06	site 2 l	38.37		23.17	10.78			23.12					95.44	Epidote
NZ06	site 2 m	38.84		23.50	10.53			23.40					96.28	Epidote
NZ06	site 2 n	48.91	0.55	27.24	4.66		2.40		10.41				94.16	Al-celadonite
NZ06	site 2 o	48.29	0.77	27.23	4.48		2.39		10.37				93.52	Al-celadonite
NZ06	site 2 p	48.83	0.47	27.28	4.44		2.50		10.29				93.82	Al-celadonite
NZ06	site 2 q	48.69	0.71	27.46	4.31		2.38		10.30				93.85	Al-celadonite
NZ06	site 2 t	104.90											104.90	Quartz
NZ06	site 2 u	104.38											104.38	Quartz
NZ06	site 2 v	69.68		19.29				0.65		11.34			100.97	plagioclase
NZ06	site 2 w	70.22		18.84						11.75			100.81	plagioclase
NZ06	site 2 x	67.19		20.34				2.17		10.65			100.34	plagioclase
NZ06	site 3 a	66.86		17.72					15.44	0.48			100.49	K-feldspar
NZ06	site 3 b	65.46		17.68					15.33			0.80	99.27	K-feldspar
NZ06	site 3 c	66.38		17.76					15.20	0.48		0.74	100.56	K-feldspar
NZ06	site 3 d	65.63		17.87					15.56			0.85	99.91	K-feldspar
NZ06	site 3 e	66.29		17.76					15.46	0.52			100.03	K-feldspar
NZ06	site 3 f	65.79		17.86					15.40	0.40		0.68	100.14	K-feldspar
NZ06	site 3 g	38.27		23.20	10.33			22.84					94.64	Epidote
NZ06	site 3 h	39.02		23.50	10.80			22.84					96.17	Epidote
NZ06	site 3 i	38.89		23.45	10.80			22.91					96.05	Epidote
NZ06	site 3 j	39.05		23.42	10.93	0.29		22.90					96.59	Epidote
NZ06	site 3 k	38.54		21.87	12.94			22.88					96.23	Epidote
NZ06	site 3 l	49.00	0.67	26.54	4.56		2.67		10.16				93.61	Al-celadonite
NZ06	site 3 m	48.87	0.54	26.84	4.37		2.41		10.30				93.33	Al-celadonite
NZ06	site 3 n	48.97	0.76	27.16	4.36		2.53		10.22				94.00	Al-celadonite
NZ06	site 3 o	48.97	0.62	27.60	3.97		2.46		10.02				93.64	Al-celadonite
NZ06	site 3 p	50.59		24.89	4.37		3.45		10.39				93.69	Al-celadonite
NZ06	site 3 q	66.97		20.86				2.24		10.56			100.63	plagioclase
NZ06	site 3 r	69.63		19.04				0.27		11.78			100.72	plagioclase
NZ06	site 3 s	69.98		19.08						11.69			100.74	plagioclase
NZ06	site 3 u	104.62											104.62	Quartz

Table 3: Sample NZ07

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	ZrO_2 wt%	BaO wt%	La_2O_3 wt%	CeO_2 wt%	Nd_2O_3 wt%	Total	Mineral
NZ07	1-a	103.97														103.97	Quartz
NZ07	1-b	104.24														104.24	Quartz
NZ07	3-c	104.48														104.48	Quartz
NZ07	1-d	66.00		21.13				3.28		10.03						100.44	plagioclase
NZ07	1-e	65.15		22.11				3.75		10.06						101.08	plagioclase
NZ07	1-f	64.52		22.50				4.38	0.19	9.36						100.95	plagioclase
NZ07	1-g	64.71		22.42				4.36	0.24	9.43						101.16	plagioclase
NZ07	1-h	64.70		22.14				4.39	0.25	9.47						100.94	plagioclase
NZ07	1-i	66.18		18.14					15.36	0.57						100.27	K-feldspar
NZ07	1-j	66.05		17.68					15.17	0.55						99.44	K-feldspar
NZ07	1-k	67.00		18.04					15.15	0.79						100.97	K-feldspar
NZ07	1-l	65.48		17.75					15.31	0.44						98.98	K-feldspar
NZ07	1-m	37.00	2.40	14.60	24.06	0.44	7.62		9.34							95.47	biotite
NZ07	1-n	36.60	2.79	14.47	24.86	0.50	7.26		9.21							95.71	biotite
NZ07	1-o	36.65	2.76	14.43	24.68	0.56	7.51		9.07							95.65	biotite
NZ07	1-p	38.39		22.64	11.54	0.36		22.99								95.92	Epidote
NZ07	1-q	39.27		23.18	11.35	0.31		23.20								97.31	Epidote
NZ07	1-r	38.72		23.17	11.28			23.13								96.28	Epidote
NZ07	1-s	31.96		11.99	12.06		0.59	11.06					4.55	9.87		82.08	monazite
NZ07	2-a	104.54														104.54	Quartz
NZ07	2-b	103.98														103.98	Quartz
NZ07	2-c	104.60														104.60	Quartz
NZ07	2-d	64.30		21.98				3.90		9.67						99.85	plagioclase
NZ07	2-e	64.06		22.57				4.52		9.51						100.66	plagioclase
NZ07	2-f	64.26		22.50				4.53	0.24	9.53						101.06	plagioclase
NZ07	2-g	66.16		17.54					15.23	0.48						99.42	K-feldspar
NZ07	2-h	66.53		17.63					15.41							99.56	K-feldspar
NZ07	2-i	66.62		17.79					15.46	0.45						100.32	K-feldspar

Table 3: Sample NZ07; continued

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	ZrO_2 wt%	BaO wt%	La_2O_3 wt%	CeO_2 wt%	Nd_2O_3 wt%	Total	Mineral
NZ07	2-j	47.71	0.95	26.81	5.81		1.83		10.41							93.50	Al-celadonite
NZ07	2-k	47.83	1.16	27.51	6.33		1.74		10.36							94.92	Al-celadonite
NZ07	2-l	47.36	1.00	27.05	5.82		1.72		10.43							93.39	Al-celadonite
NZ07	2-m	36.21	2.97	14.37	25.02	0.57	7.23		8.91							95.27	Al-celadonite
NZ07	2-n	36.83	2.92	13.83	24.73	0.40	7.71		9.11							95.53	Al-celadonite
NZ07	2-o	6.08		3.30	4.30		1.16	3.67					15.80	24.46	6.84	65.60	monazite
NZ07	2-p	36.75	2.59	13.96	23.80	0.37	7.93		9.12							94.53	Al-celadonite
NZ07	2-q	66.74		17.89					15.46	0.50		0.64				101.23	K-feldspar
NZ07	2-r	64.13		22.57				4.72	0.24	9.33						101.00	plagioclase
NZ07	2-s	39.14		23.22	11.07	0.32		22.83								96.58	Epidote
NZ07	3-a	104.40														104.40	Quartz
NZ07	3-b	104.84														104.84	Quartz
NZ07	3-c	102.19														102.19	Quartz
NZ07	3-d	64.48		22.59				4.54		9.35						100.96	plagioclase
NZ07	3-e	64.23		22.42				4.63		9.43						100.72	plagioclase
NZ07	3-f	66.51		21.26				2.93		10.58						101.27	plagioclase
NZ07	3-g	36.35	2.43	14.42	24.55	0.46	7.46		9.10							94.78	Al-celadonite
NZ07	3-h	36.98	2.32	14.94	24.80	0.48	7.46		9.28							96.25	Al-celadonite
NZ07	3-i	36.61	2.80	14.80	24.63	0.45	6.76		9.20							95.26	Al-celadonite
NZ07	3-j	36.93	2.79	14.01	25.03	0.59	7.71		9.11							96.17	Al-celadonite
NZ07	3-k	66.59		17.93					15.40	0.55						100.47	K-feldspar
NZ07	3-l	66.63		18.15					15.30	0.49						100.56	K-feldspar
NZ07	3-m	65.63		17.83					15.14	0.65						99.25	K-feldspar
NZ07	3-n	66.09		17.37					15.35	0.57						99.38	K-feldspar
NZ07	3-o	0.60						54.82								95.64	Ca-phosphate
NZ07	3-q	38.81		22.92	11.60			23.25								96.58	Epidote
NZ07	3-r	39.20		22.67	12.35	0.34		23.24								97.80	Epidote

Appendix 3a: Kibali Granite-Greenstone Belt Geochemical Data

Table 1: Kibali Granite Greenstone Belt; Major Element (ICP-OES) Data

Sample	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	Fe_2O_3 wt%	MnO wt%	MgO wt%	CaO wt%	Na_2O wt%	K_2O wt%	P_2O_5 wt%	LOI wt%	Total wt%
K2	69.77	0.39	15.19	2.58	0.04	1.63	2.30	4.59	1.41	0.17	1.40	99.45
K3	69.56	0.38	14.77	2.83	0.03	1.44	3.66	4.52	1.00	0.13	1.20	99.52
K4	69.41	0.37	14.55	2.56	0.04	1.28	2.98	4.90	1.35	0.17	1.07	98.68
K5	52.03	1.87	14.06	6.45	0.11	4.14	12.82	3.02	1.36	1.42	0.98	98.27
K7	57.13	0.81	13.30	6.31	0.15	6.50	10.53	4.49	0.38	0.29	0.59	100.47
K9	66.66	0.47	14.94	3.25	0.04	2.10	4.19	4.68	1.24	0.22	1.01	98.80
K10	50.96	1.02	11.57	8.95	0.21	8.43	16.39	2.43	0.08	0.48	0.63	101.14
AT1	47.64	0.63	13.45	12.10	0.19	9.08	13.74	1.51	0.08	0.06	1.25	99.74
AT2	48.42	0.62	13.27	11.51	0.20	7.93	14.00	1.99	0.07	0.05	1.20	99.27
AT3	50.58	1.09	14.38	13.70	0.20	5.64	9.20	2.64	0.42	0.09	1.39	99.32
AT4	64.62	0.42	15.95	3.50	0.05	1.56	3.31	5.36	3.55	0.14	1.46	99.93
AT5	43.86	0.43	10.47	13.44	0.19	19.11	5.75	0.18	0.09	0.12	6.19	99.82
KS2	47.28	0.77	17.20	12.12	0.17	8.30	9.16	1.98	1.17	0.07	2.75	100.96
KOK3	45.84	0.87	15.71	12.96	0.18	7.93	9.97	1.98	0.45	0.08	2.83	98.81
KOK5	47.15	0.86	15.18	12.69	0.17	7.96	8.96	2.13	0.70	0.05	3.11	98.94
KOK7	47.69	1.00	14.58	13.99	0.21	6.40	10.21	3.09	0.14	0.09	1.81	99.20
S07	65.95	0.36	15.71	3.17	0.04	1.85	3.81	4.48	2.84	0.10	1.66	99.98
S08	65.84	0.34	15.73	3.28	0.04	1.86	2.90	4.43	3.39	0.10	1.65	99.56
AMB1	68.32	0.37	16.07	3.23	0.04	1.20	3.30	4.53	2.34	0.10	0.85	100.36
MK01	69.88	0.32	15.60	2.60	0.03	1.01	3.41	4.56	1.47	0.10	0.93	99.93
MK02	67.91	0.33	16.86	2.62	0.04	1.06	3.05	4.89	1.84	0.10	1.17	99.88

Table 2: Kibali Granite-Greenstone Belt; Trace Element (ICP-MS) Data

Sample	Cr ppm	Co ppm	Ni ppm	Cu ppm	Zn ppm	Ga ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	Mo ppm
K2	5.64	7.86	37.47	10.95	76.80	23.27	60.36	360.99	5.74	107.42	4.24	0.62
K3	7.43	7.72	19.45	6.58	80.71	22.53	48.77	490.86	5.46	109.04	3.49	0.35
K4	5.85	7.88	5.92	120.26	98.57	21.85	68.03	377.28	6.38	118.89	2.69	0.58
K5	16.62	23.56	98.44	41.11	207.14	22.38	55.37	669.32	36.91	194.93	15.05	4.84
K7	315.79	17.92	133.59	32.34	136.32	14.65	11.65	732.16	17.71	140.72	6.74	64.65
K9	28.28	9.14	27.46	8.49	96.88	19.95	49.13	678.65	8.75	121.49	4.62	3.26
K10	328.06	28.86	145.07	87.30	330.42	16.57	1.80	987.53	22.94	163.76	6.68	1.93
AT1	319.86	49.43	211.65	105.20	124.30	13.61	2.41	96.97	14.46	35.10	1.37	1.72
AT2	3293.09	44.02	141.31	82.65	131.22	13.47	3.50	138.54	14.36	31.39	1.38	0.81
AT3	92.48	46.99	68.86	70.18	111.43	16.50	8.80	138.63	23.34	60.51	3.15	1.30
AT4	39.87	10.57	23.61	13.00	46.92	19.64	44.96	654.28	9.09	125.33	3.55	1.14
AT5	3543.79	97.79	1101.48	10.30	164.64	8.76	1.04	53.97	6.67	33.81	1.48	0.37
KS2	291.17	56.05	165.66	53.61	100.14	16.69	17.27	118.69	18.97	41.93	1.54	0.42
KOK3	258.32	58.60	246.36	65.22	93.43	17.55	15.72	262.58	19.68	41.54	1.59	2.13
KOK5	285.72	32.39	185.34	85.74	102.68	17.95	20.41	426.93	17.92	45.05	1.64	1.08
KOK7	45.04	45.98	60.04	83.13	121.78	16.92	1.83	327.62	19.50	34.57	1.36	0.93
S07	61.93	18.20	58.45	135.25	31.99	19.60	60.62	557.22	7.89	115.08	3.43	0.99
S08	71.72	18.97	73.53	211.16	36.13	19.33	63.40	410.40	7.36	119.58	3.27	2.05
AMB1	72.68	18.42	23.16	29.07	51.05	20.71	54.67	472.70	4.93	111.15	2.15	1.27
MK01	17.19	18.20	2.06	13.68	45.67	20.03	37.71	525.12	4.99	88.61	2.69	0.38
MK02	39.87	17.44	20.15	17.75	58.22	22.52	50.38	593.02	5.90	101.77	2.41	0.81

Table 2: Kibali Granite-Greenstone Belt; Trace Element (ICP-MS) Data; Continued

Sample	Sn ppm	Cs ppm	Ba ppm	La ppm	Ce ppm	Pr ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm
K2	0.64	1.53	755.58	14.46	28.58	3.74	2.66	0.66	2.04	0.20	1.05	0.19
K3	0.56	1.29	556.31	13.89	28.03	3.51	2.35	0.67	1.85	0.20	0.98	0.16
K4	2.97	0.96	728.54	16.33	34.51	4.43	2.91	0.73	2.25	0.22	1.18	0.20
K5	1.33	0.72	705.80	99.26	231.65	30.15	18.56	4.10	13.61	1.39	6.66	1.16
K7	1.41	0.21	212.95	23.10	51.04	6.72	5.08	1.45	4.36	0.51	2.86	0.56
K9	0.72	0.77	728.06	25.66	51.01	6.74	4.30	1.11	3.25	0.32	1.62	0.28
K10	1.06	0.04	47.11	38.05	85.33	11.61	9.24	2.46	7.27	0.81	4.18	0.77
AT1	0.50	0.13	23.06	2.18	5.56	0.87	1.42	0.52	1.75	0.29	2.17	0.48
AT2	1.11	0.10	42.67	2.33	5.62	0.92	1.37	0.51	1.64	0.28	2.13	0.47
AT3	0.79	0.66	48.60	6.41	15.11	2.16	2.71	0.91	3.11	0.50	3.54	0.78
AT4	0.68	0.97	588.99	30.04	63.82	8.05	4.62	1.20	3.39	0.34	1.65	0.30
AT5	0.60	0.07	18.99	6.19	15.07	2.08	1.54	0.20	1.37	0.17	1.11	0.23
KS2	0.57	1.80	188.14	2.45	6.07	1.04	1.70	0.70	2.23	0.37	2.74	0.63
KOK3	0.23	0.54	130.73	6.11	13.69	1.99	2.28	0.86	2.54	0.40	2.82	0.60
KOK5	0.42	0.60	225.22	7.75	13.90	2.27	2.44	0.86	2.60	0.40	2.86	0.61
KOK7	0.34	0.08	102.98	8.89	17.31	2.66	2.60	0.90	2.69	0.42	2.86	0.62
S07	0.50	2.02	736.87	19.61	40.35	5.05	3.10	0.86	2.40	0.25	1.33	0.25
S08	0.62	1.82	853.20	24.92	48.81	5.73	3.16	0.78	2.37	0.24	1.24	0.23
AMB1	1.24	0.94	602.09	19.24	35.97	4.32	2.31	0.66	1.76	0.16	0.85	0.15
MK01	0.79	1.11	440.77	13.62	26.68	3.24	2.10	0.58	1.64	0.17	0.87	0.15
MK02	0.75	1.25	527.16	14.80	29.62	3.69	2.50	0.70	1.99	0.20	1.05	0.18

Table 2: Kibali Granite-Greenstone Belt; Trace Element (ICP-MS) Data; Continued

Sample	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Ta ppm	Pb ppm	Th ppm	U ppm
K2	0.49	0.07	0.43	0.06	2.55	0.24	3.13	2.14	0.77
K3	0.46	0.06	0.42	0.06	2.60	0.34	4.29	1.93	0.71
K4	0.55	0.07	0.49	0.08	2.94	0.34	19.38	2.02	0.82
K5	3.11	0.45	2.53	0.42	3.66	1.04	9.29	8.52	2.19
K7	1.46	0.22	1.32	0.21	3.04	0.62	6.14	2.72	0.80
K9	0.75	0.10	0.65	0.10	2.94	0.58	6.09	3.29	1.03
K10	2.01	0.28	1.73	0.27	3.39	0.49	38.98	3.26	0.97
AT1	1.46	0.24	1.51	0.24	0.83	0.08	2.52	0.20	0.05
AT2	1.37	0.23	1.46	0.23	0.78	0.10	4.41	0.14	0.05
AT3	2.23	0.37	2.31	0.38	1.64	0.26	4.09	1.09	0.40
AT4	0.81	0.12	0.72	0.11	2.98	0.33	8.57	3.78	0.96
AT5	0.65	0.10	0.68	0.11	0.67	0.09	0.48	0.26	0.08
KS2	1.81	0.30	1.89	0.30	1.09	0.14	2.87	0.15	0.05
KOK3	1.73	0.28	1.78	0.29	1.08	0.10	3.76	0.75	0.21
KOK5	1.76	0.28	1.76	0.28	1.26	0.11	6.01	0.71	0.23
KOK7	1.79	0.29	1.78	0.28	0.93	0.12	4.29	1.00	0.28
S07	0.67	0.11	0.64	0.10	2.79	0.45	8.32	5.83	2.09
S08	0.65	0.10	0.59	0.10	2.89	0.43	5.32	5.69	2.09
AMB1	0.44	0.06	0.38	0.06	2.74	0.16	7.81	3.31	1.10
MK01	0.41	0.06	0.38	0.05	2.23	0.37	7.49	1.86	0.66
MK02	0.49	0.07	0.43	0.06	2.57	0.17	8.35	2.01	0.69

Appendix 3b: Upper Congo Granitic Massif Geochemical Data

Table 1: Upper Congo Granitic Massif; Major Element (ICP-OES) Data

Sample	SiO_2 wt%	TiO_2 wt%	Al_2O_3 wt%	Fe_2O_3 wt%	MnO wt%	MgO wt%	CaO wt%	Na_2O wt%	K_2O wt%	P_2O_5 wt%	LOI wt%	Total wt%
W1	48.99	1.51	12.44	13.26	0.20	6.79	12.05	2.21	0.18	0.14	1.14	98.93
W2	64.11	0.61	13.34	5.32	0.09	3.76	4.43	3.89	2.34	0.42	0.71	99.03
W3	47.02	1.64	18.69	11.44	0.12	4.59	10.93	3.43	0.18	0.78	0.50	99.32
W4	47.72	0.80	15.42	11.46	0.16	8.40	13.22	2.20	0.15	0.28	0.27	100.10
W5	49.66	1.00	13.05	13.66	0.20	8.00	11.50	2.18	0.19	0.10	0.35	99.89
W6	49.78	0.61	9.52	10.56	0.18	14.27	13.20	1.61	0.19	0.43	0.66	101.02
W7	48.01	0.96	13.49	13.12	0.19	9.15	12.84	1.96	0.14	0.09	0.50	100.45
W9	71.16	0.37	12.84	3.27	0.06	1.68	2.81	3.27	2.67	0.18	0.79	99.10
W10	64.12	0.67	13.96	5.95	0.10	3.72	5.23	3.99	2.08	0.41	0.61	100.85
W11	63.74	0.58	13.97	5.89	0.09	3.88	5.12	3.86	2.35	0.44	0.68	100.59
W12	66.50	0.55	14.83	4.55	0.05	1.90	4.37	4.06	1.43	0.20	0.79	99.24
W13	62.68	0.62	14.19	5.85	0.09	4.19	5.05	3.66	2.26	0.44	0.90	99.93
W14	61.01	0.67	14.39	6.14	0.10	4.44	5.08	3.62	2.26	0.46	0.94	99.12
W15	46.94	0.87	14.28	11.89	0.17	9.06	12.30	1.80	0.34	0.08	2.25	99.99
W16	47.61	1.57	12.33	13.49	0.19	7.55	12.96	1.86	0.21	0.15	1.56	99.48
W17	51.10	0.80	13.88	9.99	0.18	5.43	16.39	1.38	0.07	0.07	1.00	100.29
W18	48.03	0.81	14.65	11.69	0.18	8.97	10.59	2.88	0.16	0.08	2.03	100.08
W19	61.70	0.65	14.14	6.01	0.10	3.97	5.39	3.83	2.12	0.41	0.68	98.99
W20	55.59	0.75	14.54	9.56	0.15	6.73	6.43	3.56	2.06	0.49	0.84	100.68
W21	49.59	1.66	12.68	14.40	0.22	6.77	12.04	1.88	0.17	0.15	1.59	101.15
WP01	46.70	0.77	8.53	11.81	0.22	13.66	15.63	0.59	0.14	0.22	1.40	99.68
WP02	44.16	2.20	16.97	13.13	0.10	5.49	12.04	3.10	0.38	1.21	1.09	99.89
WP03	46.73	1.05	8.07	14.39	0.22	13.77	13.36	1.36	0.18	0.82	0.86	100.80
WP04	62.87	0.47	13.15	6.71	0.10	1.98	11.17	2.01	1.55	0.29	0.40	100.70
WP05	68.90	0.45	13.02	4.06	0.07	2.66	3.54	3.61	2.27	0.30	0.89	99.78
WP06	66.58	0.49	13.51	4.74	0.08	3.10	3.83	3.72	2.04	0.35	1.22	99.65
WP07	59.84	0.81	14.84	7.24	0.11	4.57	6.24	3.97	1.41	0.49	1.17	100.71
WP08	66.48	0.57	14.70	4.89	0.08	2.34	4.54	3.86	1.84	0.31	0.94	100.56
WP09	63.25	0.65	13.18	5.68	0.10	4.15	4.97	3.74	2.12	0.43	0.70	98.97
WD01	46.92	1.03	14.14	13.25	0.19	8.30	12.95	2.11	0.15	0.24	0.37	99.64
WD02	53.06	0.31	19.55	5.73	0.08	3.55	9.30	4.34	0.32	0.35	1.01	97.61
WD03	44.21	2.55	17.09	12.69	0.12	5.42	11.82	3.22	0.45	1.25	1.10	99.93
H3	77.88	0.10	11.91	1.37	0.02	0.13	0.47	3.62	3.23	0.01	0.23	98.98
H4	75.12	0.30	12.31	2.58	0.04	0.31	1.63	3.20	3.21	0.30	0.49	99.48

Table 2: Upper Congo Granitic Massif; Trace Element (ICP-MS) Data

Sample	Cr	Co	Ni	Cu	Zn	Ga	Rb	Sr	Y	Zr	Nb	Mo
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
W1	122.0	42.3	112.2	107.2	142.0	19.6	10.1	170.3	25.9	101.2	7.17	1.37
W2	96.1	15.1	71.5	17.4	167.6	17.7	101.4	575.1	19.1	158.9	7.23	1.42
W3	18.0	24.1	18.1	69.0	173.9	25.2	3.6	1503.3	13.4	37.6	2.19	0.80
W4	61.6	40.1	109.5	65.1	165.3	17.5	3.3	728.8	11.9	21.0	1.33	1.08
W5	562.4	58.8	226.0	91.1	249.4	18.8	5.5	264.5	18.7	26.6	2.69	1.07
W6	470.1	54.0	359.5	59.5	190.7	15.1	4.1	638.1	14.7	41.4	2.54	0.73
W7	202.9	52.4	210.3	64.0	153.0	17.7	4.3	434.3	9.9	24.1	0.73	0.83
W9	60.0	8.7	122.4	26.0	66.9	16.7	110.4	390.4	11.4	136.6	4.67	0.82
W10	85.3	19.2	59.0	52.8	112.2	20.1	99.0	780.8	20.5	186.5	6.71	1.26
W11	119.3	20.1	102.7	66.3	127.5	19.5	119.6	767.0	12.8	160.3	4.61	1.43
W12	39.8	10.7	85.1	40.6	121.7	21.1	96.6	547.8	12.0	196.2	4.47	1.62
W13	108.9	17.2	93.1	45.0	138.7	18.7	91.6	662.8	18.0	221.4	6.26	2.47
W14	104.9	18.0	81.0	60.0	116.9	19.2	109.4	677.1	19.4	163.3	6.63	1.28
W15	303.2	38.2	126.7	246.6	142.7	15.2	14.9	173.4	17.7	41.3	1.70	0.65
W16	160.7	45.3	91.0	95.2	163.7	20.5	9.8	190.9	25.9	81.0	6.74	0.99
W17	453.1	51.6	154.4	85.1	129.1	16.9	1.3	102.6	19.4	43.6	1.50	3.97
W18	300.8	50.2	176.4	131.6	114.8	16.8	8.6	172.8	19.1	38.2	2.75	3.37
W19	95.2	17.8	54.0	48.5	114.6	18.4	94.5	766.0	20.4	220.4	7.86	1.47
W20	141.5	27.2	114.3	37.2	184.9	20.2	118.4	736.9	32.3	173.7	6.79	1.14
W21	136.3	45.9	99.4	92.4	204.0	20.4	8.8	165.4	27.7	107.7	7.15	1.81
WP01	744.2	47.7	351.1	117.0	170.5	11.8	12.0	452.7	18.0	48.4	2.22	0.92
WP02	2.2	25.8	22.0	34.9	203.3	25.5	8.6	1379.8	29.8	52.2	4.74	0.72
WP03	392.9	52.5	184.9	25.1	197.3	15.4	7.7	514.4	21.5	61.6	1.94	0.83
WP04	75.7	8.5	57.0	15.9	74.2	23.2	28.8	1100.1	17.4	175.5	8.10	1.08
WP05	71.0	11.4	40.4	48.6	83.5	18.0	96.9	432.9	16.2	183.3	9.17	0.98
WP06	70.1	14.1	56.0	11.7	108.3	17.6	80.0	548.9	16.1	109.2	3.60	0.75
WP07	83.2	19.3	57.5	36.6	128.3	19.9	62.3	829.8	22.9	272.0	6.69	1.28
WP08	24.1	12.1	55.3	41.6	117.6	18.2	108.9	558.1	13.9	178.9	6.06	1.07
WP09	93.5	18.3	73.9	23.8	129.5	16.9	94.6	584.8	20.4	183.0	6.42	1.31
WD01	205.6	56.3	173.2	61.1	192.2	18.6	2.7	501.5	18.8	38.2	1.92	0.83
WD02	58.2	24.0	81.8	92.3	121.7	24.2	9.6	1042.0	6.1	15.8	0.73	0.78
WD03	7.5	6.9	13.4	15.5	143.1	26.7	16.2	1398.1	40.9	80.3	5.66	0.73
H3	56.8	0.4	6.2	42.2	45.9	18.6	178.4	16.6	22.5	180.5	9.28	2.36
H4	37.6	11.9	9.2	18.0	56.7	15.8	88.9	168.1	10.7	303.9	5.34	2.05

Table 2: Upper Congo Granitic Massif; Trace Element (ICP-MS) Data; Continued

Sample	Sn	Cs	Ba	La	Ce	Pr	Sm	Eu	Gd	Tb	Dy	Ho
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
W1	0.97	2.69	63.7	7.96	19.87	3.02	3.70	1.16	4.14	0.63	4.17	0.86
W2	1.33	1.91	1229.9	52.31	124.44	14.81	9.35	2.22	7.15	0.74	3.50	0.61
W3	0.60	0.39	262.2	18.36	41.26	6.16	6.09	2.60	5.03	0.53	2.67	0.47
W4	1.31	0.33	146.5	10.03	23.27	3.53	3.47	1.31	2.97	0.37	2.09	0.40
W5	0.99	0.91	244.3	7.79	17.20	2.45	2.76	1.02	3.05	0.46	3.02	0.62
W6	0.98	0.54	141.2	13.63	36.14	5.80	5.75	1.65	4.56	0.52	2.72	0.50
W7	0.50	0.43	120.4	6.21	14.67	2.22	2.39	1.06	2.17	0.30	1.74	0.34
W9	0.65	2.20	715.1	45.54	82.95	10.18	5.63	1.23	4.27	0.44	2.09	0.37
W10	0.81	2.99	1458.8	57.62	118.52	14.98	9.29	2.41	7.39	0.75	3.66	0.65
W11	1.41	4.02	1316.5	40.10	94.29	9.67	6.32	1.70	4.89	0.50	2.48	0.44
W12	0.93	4.70	621.0	39.54	82.32	8.64	4.91	1.22	3.95	0.43	2.21	0.41
W13	1.29	1.07	1327.8	50.73	109.30	13.37	8.61	2.22	6.75	0.69	3.39	0.60
W14	1.29	1.02	1349.3	60.59	122.29	15.04	9.33	2.35	7.15	0.74	3.54	0.62
W15	0.69	0.49	170.8	3.86	8.99	1.38	1.89	0.72	2.34	0.38	2.72	0.60
W16	1.26	0.43	75.5	8.18	20.12	3.08	3.75	1.21	4.25	0.64	4.26	0.89
W17	0.41	0.09	29.0	2.50	6.68	1.09	1.82	0.70	2.27	0.40	2.97	0.66
W18	0.62	0.87	83.1	2.60	6.70	1.12	1.84	0.71	2.38	0.40	2.83	0.64
W19	0.80	2.89	1515.7	58.94	118.05	15.02	9.50	2.29	7.00	0.74	3.57	0.63
W20	1.29	5.77	976.1	58.10	132.72	19.33	15.06	2.63	10.43	1.19	5.81	1.03
W21	0.99	1.96	60.4	9.44	23.01	3.47	4.07	1.27	4.30	0.68	4.43	0.89
WP01	1.35	0.46	235.3	21.77	45.20	8.01	6.88	1.62	5.21	0.65	3.39	0.61
WP02	1.38	0.42	381.3	33.20	84.34	13.12	13.16	3.80	10.22	1.18	5.85	1.02
WP03	0.59	0.68	206.7	20.64	54.74	8.63	8.38	2.20	6.43	0.77	3.89	0.74
WP04	1.11	0.27	968.9	57.96	103.19	13.04	7.63	1.71	5.67	0.61	2.83	0.51
WP05	0.89	1.50	981.7	48.64	98.12	11.78	7.01	1.55	5.24	0.55	2.65	0.48
WP06	0.67	1.48	1253.7	54.53	118.22	14.05	8.25	1.93	5.95	0.64	3.07	0.53
WP07	0.81	1.85	1243.1	51.24	118.63	15.52	10.72	2.67	8.04	0.85	4.11	0.74
WP08	1.48	3.20	744.0	38.19	98.56	9.88	6.01	1.40	4.44	0.47	2.39	0.43
WP09	0.83	2.62	1164.0	62.84	127.92	16.23	10.08	2.27	7.44	0.75	3.65	0.62
WD01	0.63	0.24	174.4	13.05	32.21	4.92	4.96	1.53	4.34	0.56	3.26	0.63
WD02	0.76	0.76	394.7	20.66	38.02	4.64	2.92	1.64	2.23	0.22	1.13	0.20
WD03	0.68	0.64	435.3	40.94	105.66	16.97	17.77	5.21	14.43	1.59	8.06	1.42
H3	1.25	1.81	27.1	23.48	78.51	7.53	6.01	0.07	4.93	0.62	3.59	0.67
H4	0.69	0.71	1273.9	37.34	100.43	7.77	4.10	1.34	3.53	0.38	1.95	0.38

Table 2: Upper Congo Granitic Massif; Trace Element (ICP-MS) Data; Continued

Sample	Er	Tm	Yb	Lu	Hf	Ta	Pb	Th	U
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
W1	2.32	0.37	2.19	0.35	2.24	0.45	3.36	1.21	0.34
W2	1.69	0.24	1.49	0.23	3.65	0.53	17.05	8.73	2.62
W3	1.15	0.14	0.80	0.12	0.68	0.10	3.08	0.53	0.12
W4	1.04	0.15	0.88	0.14	0.54	0.07	3.05	0.40	0.12
W5	1.73	0.27	1.64	0.25	0.71	0.15	8.90	0.29	0.10
W6	1.29	0.18	1.10	0.17	1.14	0.11	3.05	0.39	0.13
W7	0.89	0.13	0.78	0.13	0.61	0.05	1.99	0.12	0.05
W9	0.99	0.15	0.85	0.14	3.43	0.29	21.58	17.65	1.65
W10	1.74	0.25	1.49	0.23	4.11	0.41	17.62	7.68	2.06
W11	1.15	0.18	1.03	0.17	3.80	0.29	20.38	7.17	1.83
W12	1.06	0.15	0.93	0.14	4.74	0.35	17.00	7.24	2.74
W13	1.57	0.23	1.32	0.21	5.04	0.34	17.54	7.61	2.08
W14	1.64	0.23	1.39	0.22	4.01	0.38	12.46	8.09	2.27
W15	1.67	0.28	1.74	0.28	1.04	0.12	7.11	0.56	0.10
W16	2.40	0.38	2.30	0.36	2.29	0.42	3.80	0.96	0.33
W17	1.86	0.32	2.02	0.32	1.17	0.11	1.81	0.16	0.06
W18	1.81	0.31	1.89	0.30	1.05	0.10	2.65	0.10	0.05
W19	1.72	0.25	1.46	0.23	4.77	0.36	17.36	6.94	1.98
W20	2.75	0.40	2.27	0.35	3.61	0.25	9.36	8.20	1.84
W21	2.47	0.40	2.30	0.37	2.66	0.50	3.41	1.39	0.39
WP01	1.59	0.23	1.29	0.20	1.18	0.10	4.74	0.65	0.18
WP02	2.51	0.33	1.78	0.25	1.38	0.32	3.80	0.69	0.20
WP03	1.86	0.28	1.55	0.25	1.52	0.15	3.27	0.72	0.23
WP04	1.37	0.21	1.21	0.19	4.10	0.50	20.16	9.53	1.88
WP05	1.31	0.21	1.24	0.20	4.31	0.64	17.11	15.73	2.60
WP06	1.41	0.21	1.28	0.19	2.55	0.29	15.71	7.20	1.30
WP07	1.98	0.29	1.71	0.27	5.53	0.31	12.25	4.43	1.14
WP08	1.18	0.19	1.13	0.19	3.82	0.55	19.40	9.27	2.41
WP09	1.67	0.24	1.48	0.24	3.80	0.67	16.52	10.23	1.67
WD01	1.69	0.26	1.51	0.24	0.81	0.16	2.24	0.49	0.10
WD02	0.54	0.08	0.43	0.07	0.28	0.08	7.58	0.52	0.23
WD03	3.45	0.45	2.45	0.36	1.83	0.36	3.96	0.73	0.23
H3	1.86	0.29	1.93	0.31	5.15	0.71	10.54	15.37	3.98
H4	1.02	0.15	0.89	0.14	6.38	0.29	14.70	8.05	0.80

Appendix 4a: Kibali Granite Greenstone Belt U-Pb Zircon Data

Table 1: Sample AMB1

Sample	Analysis	$^{238}U/^{206}Pb$	1 σ %	$^{207}Pb/^{206}Pb$	1s %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1 σ %	ρ
AMB1	z18_1a	2.15	1.21	0.18	0.21	11.47	1.22	0.46	1.21	0.98
AMB1	z18_1b	1.91	1.07	0.18	0.21	13.01	1.09	0.52	1.07	0.98
AMB1	z20_1	2.82	3.10	0.18	0.26	8.67	3.12	0.35	3.10	1.00
AMB1	z21_1	1.88	0.73	0.18	0.18	13.21	0.76	0.53	0.73	0.97
AMB1	z25_1	2.27	0.57	0.17	0.37	10.59	0.68	0.44	0.57	0.84
AMB1	z26_1a	2.06	1.05	0.18	0.19	12.05	1.07	0.49	1.05	0.98
AMB1	z26_1b	1.86	0.89	0.18	0.19	13.34	0.91	0.54	0.89	0.98
AMB1	z27_1	2.01	0.98	0.18	0.20	12.26	1.01	0.50	0.98	0.98
AMB1	z28_1	1.98	0.91	0.18	0.19	12.50	0.93	0.51	0.91	0.98
AMB1	z33_1a	2.11	1.06	0.18	0.22	11.69	1.08	0.47	1.06	0.98
AMB1	z33_1b	1.95	0.74	0.18	0.20	12.53	0.77	0.51	0.74	0.97
AMB1	z39_1	1.89	0.66	0.18	0.20	13.12	0.69	0.53	0.66	0.96
AMB1	z34_1	1.90	0.91	0.18	0.20	12.96	0.93	0.53	0.91	0.98
AMB1	z28_1a	2.29	1.01	0.18	0.26	10.71	1.04	0.44	1.01	0.97
AMB1	z42_1	2.37	0.57	0.18	0.33	10.19	0.66	0.42	0.57	0.86
AMB1	z43_1	2.07	1.16	0.18	0.19	11.95	1.17	0.48	1.16	0.99
AMB1	z46_1	2.12	0.74	0.18	0.27	11.58	0.79	0.47	0.74	0.94
AMB1	z48_1a	2.30	1.24	0.18	0.19	10.76	1.26	0.44	1.24	0.99
AMB1	z48_1b	2.01	1.83	0.18	0.29	12.13	1.85	0.50	1.83	0.99
AMB1	z49_1	1.99	0.78	0.18	0.28	12.47	0.82	0.50	0.78	0.94
AMB1	z55_1	1.84	1.08	0.18	0.27	13.50	1.12	0.54	1.08	0.97
AMB1	z60_1a	2.28	1.74	0.18	0.21	10.72	1.75	0.44	1.74	0.99
AMB1	z60_1b	2.13	1.11	0.18	0.23	11.41	1.13	0.47	1.11	0.98
AMB1	z60_1c	1.92	1.02	0.18	0.19	12.70	1.04	0.52	1.02	0.98
AMB1	z59_1a	2.15	0.90	0.18	0.25	11.55	0.94	0.47	0.90	0.96
AMB1	z59_1b	1.94	1.24	0.18	0.24	12.73	1.27	0.51	1.24	0.98
AMB1	z59_2a	2.45	1.00	0.18	0.19	9.95	1.02	0.41	1.00	0.98
AMB1	z59_2b	2.12	0.76	0.18	0.20	11.57	0.79	0.47	0.76	0.97
AMB1	z61_1a	2.01	0.72	0.18	0.34	12.11	0.80	0.50	0.72	0.91
AMB1	z61_1b	2.17	0.61	0.17	0.19	11.03	0.64	0.46	0.61	0.96
AMB1	z61_2	1.96	0.88	0.18	0.18	12.62	0.90	0.51	0.88	0.98
AMB1	z62_1	1.92	1.02	0.18	0.21	12.88	1.04	0.52	1.02	0.98
AMB1	z67_1	1.84	0.53	0.18	0.19	13.52	0.57	0.54	0.53	0.94
AMB1	z69_1	1.95	0.51	0.18	0.20	12.74	0.54	0.51	0.51	0.93
AMB1	z71_1	2.33	0.51	0.17	0.20	10.33	0.55	0.43	0.51	0.93
AMB1	z72_1	2.44	1.27	0.18	0.21	10.05	1.29	0.41	1.27	0.99
AMB1	z73_1a	2.40	0.84	0.17	0.35	10.01	0.91	0.42	0.84	0.92
AMB1	z73_1b	1.92	0.58	0.18	0.20	12.79	0.61	0.52	0.58	0.94
AMB1	z76_1	1.92	0.58	0.18	0.19	12.96	0.61	0.52	0.58	0.95
AMB1	z76_2	1.99	1.02	0.18	0.20	12.43	1.04	0.50	1.02	0.98

Table 1: Sample AMB1; Continued

				Ages				Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2 σ abs	$^{206}Pb/^{238}U$	2 σ abs	$^{207}Pb/^{235}U$	2 σ abs	6-38/7-6	6-38/7-35
AMB1	z18_1a	2646.13	3.53	2458.73	49.12	2562.35	22.62	7.08	4.04
AMB1	z18_1b	2652.51	3.42	2718.23	47.19	2680.27	20.30	-2.48	-1.42
AMB1	z20_1	2630.82	4.40	1955.10	103.88	2304.28	55.21	25.68	15.15
AMB1	z21_1	2651.74	3.06	2752.82	32.72	2694.47	14.16	-3.81	-2.17
AMB1	z25_1	2602.33	6.22	2350.32	22.35	2487.54	12.54	9.68	5.52
AMB1	z26_1a	2651.17	3.18	2555.11	44.09	2608.62	19.79	3.62	2.05
AMB1	z26_1b	2655.46	3.22	2771.24	40.14	2704.34	17.13	-4.36	-2.47
AMB1	z27_1	2641.34	3.38	2603.28	42.05	2624.32	18.71	1.44	0.80
AMB1	z28_1	2648.07	3.10	2637.12	39.28	2642.89	17.32	0.41	0.22
AMB1	z33_1a	2646.25	3.65	2496.37	43.62	2579.52	20.00	5.66	3.22
AMB1	z33_1b	2628.50	3.34	2667.86	32.31	2645.11	14.34	-1.50	-0.86
AMB1	z39_1	2651.01	3.37	2738.38	29.44	2687.96	12.97	-3.30	-1.88
AMB1	z34_1	2641.63	3.33	2724.17	40.43	2676.62	17.47	-3.12	-1.78
AMB1	z28_1a	2631.54	4.39	2338.80	39.35	2498.39	19.14	11.12	6.39
AMB1	z42_1	2608.62	5.53	2269.27	21.72	2452.36	12.11	13.01	7.47
AMB1	z43_1	2645.44	3.14	2544.31	48.47	2600.57	21.74	3.82	2.16
AMB1	z46_1	2634.31	4.46	2492.72	30.58	2571.15	14.63	5.37	3.05
AMB1	z48_1a	2646.95	3.23	2328.65	48.33	2502.19	23.08	12.03	6.94
AMB1	z48_1b	2625.79	4.78	2601.30	77.90	2614.67	34.18	0.93	0.51
AMB1	z49_1	2652.08	4.57	2626.62	33.37	2640.60	15.35	0.96	0.53
AMB1	z55_1	2652.14	4.50	2801.40	49.07	2715.04	20.91	-5.63	-3.18
AMB1	z60_1a	2630.92	3.55	2340.62	67.79	2498.90	31.98	11.03	6.33
AMB1	z60_1b	2618.02	3.87	2482.20	45.46	2557.23	20.91	5.19	2.93
AMB1	z60_1c	2626.92	3.12	2698.39	44.80	2657.30	19.33	-2.72	-1.55
AMB1	z59_1a	2653.82	4.21	2463.58	36.85	2568.89	17.37	7.17	4.10
AMB1	z59_1b	2649.50	3.95	2675.08	54.26	2660.11	23.58	-0.97	-0.56
AMB1	z59_2a	2623.35	3.16	2206.54	37.43	2429.89	18.69	15.89	9.19
AMB1	z59_2b	2633.56	3.39	2491.73	31.46	2570.28	14.65	5.39	3.06
AMB1	z61_1a	2617.89	5.58	2607.94	30.90	2613.12	14.83	0.38	0.20
AMB1	z61_1b	2593.67	3.10	2442.32	24.67	2525.44	11.77	5.84	3.29
AMB1	z61_2	2650.39	2.97	2654.46	38.32	2651.72	16.82	-0.15	-0.10
AMB1	z62_1	2649.99	3.48	2700.15	44.79	2671.14	19.41	-1.89	-1.09
AMB1	z67_1	2657.32	3.14	2799.03	24.17	2717.01	10.65	-5.33	-3.02
AMB1	z69_1	2651.78	3.32	2673.58	22.10	2660.76	10.19	-0.82	-0.48
AMB1	z71_1	2601.30	3.36	2303.93	19.81	2464.96	10.14	11.43	6.53
AMB1	z72_1	2635.34	3.55	2212.56	47.39	2439.52	23.51	16.04	9.30
AMB1	z73_1a	2600.60	5.80	2243.41	31.78	2435.37	16.66	13.73	7.88
AMB1	z73_1b	2636.72	3.33	2701.74	25.39	2664.28	11.43	-2.47	-1.41
AMB1	z76_1	2658.45	3.10	2701.68	25.39	2676.59	11.36	-1.63	-0.94
AMB1	z76_2	2651.96	3.32	2619.71	43.65	2637.52	19.30	1.22	0.68

Table 2: Sample AT4

Sample	Analysis	$^{238}U/^{206}Pb$	1 σ %	$^{207}Pb/^{206}Pb$	1s %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1 σ %	ρ
AT4	at4b 1-1	2.02	1.54	0.18	0.14	12.27	1.55	0.50	1.54	1.00
AT4	at4b 2-1a	2.26	2.53	0.18	0.34	10.81	2.55	0.44	2.53	0.99
AT4	at4b 2-1b	1.78	2.27	0.18	0.55	14.20	2.33	0.56	2.27	0.97
AT4	at4b 4-1	2.03	1.32	0.18	0.07	12.22	1.32	0.49	1.32	1.00
AT4	at4b 5-1	2.16	1.29	0.18	0.11	11.30	1.29	0.46	1.29	1.00
AT4	at4b 6-1	2.08	1.48	0.18	0.07	11.88	1.49	0.48	1.48	1.00
AT4	at4b 7-1	2.09	1.58	0.18	0.10	11.87	1.58	0.48	1.58	1.00
AT4	at4b 8-1	2.49	1.30	0.18	0.26	9.81	1.32	0.40	1.30	0.98
AT4	at4b 8-1b	2.05	1.90	0.18	0.30	11.97	1.93	0.49	1.90	0.99
AT4	at4b 10-1	2.04	1.35	0.18	0.10	12.07	1.36	0.49	1.35	1.00
AT4	at4b 11-1	2.01	1.64	0.18	0.12	12.26	1.64	0.50	1.64	1.00
AT4	at4b 12-1	2.28	1.56	0.18	0.15	10.68	1.56	0.44	1.56	1.00
AT4	at4b 17-1	2.35	1.37	0.18	0.15	10.30	1.38	0.42	1.37	0.99
AT4	at4b 18-1a	2.24	1.78	0.18	0.25	11.05	1.80	0.45	1.78	0.99
AT4	at4b 18-1b	1.97	1.90	0.18	0.41	12.57	1.95	0.51	1.90	0.98
AT4	at4b 31-1	3.00	1.31	0.17	0.23	7.77	1.33	0.33	1.31	0.98
AT4	at4b 34-1	2.36	1.99	0.18	0.40	10.32	2.03	0.42	1.99	0.98
AT4	at4b 35-1	2.24	1.34	0.18	0.17	10.99	1.35	0.45	1.34	0.99
AT4	at4b 36-1	1.81	1.46	0.18	0.09	13.60	1.47	0.55	1.46	1.00
AT4	at4b 33-2	2.02	1.25	0.18	0.08	12.23	1.25	0.50	1.25	1.00
AT4	at4b 40-1	1.95	1.41	0.18	0.14	12.72	1.42	0.51	1.41	1.00
AT4	at4b 19-1a	2.29	1.90	0.18	0.15	10.69	1.91	0.44	1.90	1.00
AT4	at4b 20-1	2.18	1.38	0.18	0.25	11.20	1.40	0.46	1.38	0.98
AT4	at4b 22-1	1.99	1.47	0.18	0.08	12.48	1.47	0.50	1.47	1.00
AT4	at4b 23-1	2.48	1.86	0.17	0.35	9.59	1.89	0.40	1.86	0.98
AT4	at4b 24-1	1.91	1.68	0.18	0.09	12.91	1.68	0.52	1.68	1.00
AT4	at4b 25-1b	2.72	2.15	0.18	0.16	9.06	2.16	0.37	2.15	1.00
AT4	at4b 26-1	2.06	1.43	0.18	0.13	11.89	1.43	0.49	1.43	1.00
AT4	at4b 27-1	2.29	1.40	0.18	0.18	10.59	1.41	0.44	1.40	0.99
AT4	at4b 28-1	2.01	1.32	0.18	0.14	12.22	1.33	0.50	1.32	0.99
AT4	at4b 29-1a	1.99	1.32	0.18	0.15	12.32	1.33	0.50	1.32	0.99
AT4	at4b 29-1b	2.22	1.79	0.17	0.28	10.80	1.82	0.45	1.79	0.99
AT4	at4 9-1	1.99	1.53	0.18	0.17	12.37	1.54	0.50	1.53	0.99
AT4	at4 10-1	2.03	1.29	0.18	0.12	12.11	1.30	0.49	1.29	1.00
AT4	at4 11-1	2.15	1.23	0.18	0.17	11.35	1.24	0.46	1.23	0.99
AT4	at4 12-1a	2.73	2.18	0.17	0.23	8.64	2.20	0.37	2.18	0.99
AT4	at4 12-1b	1.91	1.56	0.18	0.08	12.83	1.56	0.52	1.56	1.00
AT4	at4 13-1	1.89	1.27	0.18	0.12	13.02	1.28	0.53	1.27	1.00
AT4	at4 37-1	2.21	1.59	0.18	0.14	10.99	1.60	0.45	1.59	1.00
AT4	at4 38-1	1.91	1.87	0.18	0.10	12.88	1.87	0.52	1.87	1.00
AT4	at4 58-1a	2.17	1.55	0.18	0.19	11.29	1.56	0.46	1.55	0.99
AT4	at4 58-1b	1.82	2.96	0.18	0.49	13.33	3.00	0.55	2.96	0.99
AT4	at4 59-1	2.34	2.61	0.18	0.30	10.32	2.62	0.43	2.61	0.99
AT4	at4 60-1	2.06	1.55	0.18	0.13	11.92	1.55	0.48	1.55	1.00
AT4	at4 61-1	2.47	1.90	0.17	0.40	9.67	1.94	0.40	1.90	0.98
AT4	at4 62-1	2.03	1.83	0.18	0.08	12.09	1.83	0.49	1.83	1.00
AT4	at4 70-1	2.18	1.71	0.18	0.18	11.21	1.72	0.46	1.71	0.99
AT4	at4 71-1	1.97	1.36	0.18	0.06	12.48	1.36	0.51	1.36	1.00

Table 2: Sample AT4; Continued

		Ages						Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2 σ abs	$^{206}Pb/^{238}U$	2 σ abs	$^{207}Pb/^{235}U$	2 σ abs	6-38/7-6	6-38/7-35
AT4	at4b 1-1	2648.43	2.40	2595.92	65.60	2625.10	28.69	1.98	1.11
AT4	at4b 2-1a	2624.64	5.64	2365.87	99.49	2507.30	46.40	9.86	5.64
AT4	at4b 2-1b	2681.90	9.03	2876.22	104.45	2762.91	43.34	-7.25	-4.10
AT4	at4b 4-1	2654.16	1.20	2580.62	55.94	2621.61	24.54	2.77	1.56
AT4	at4b 5-1	2629.05	1.78	2449.69	52.36	2548.61	23.86	6.82	3.88
AT4	at4b 6-1	2648.84	1.20	2527.63	61.75	2595.04	27.45	4.58	2.60
AT4	at4b 7-1	2648.98	1.66	2525.12	65.71	2594.00	29.24	4.68	2.66
AT4	at4b 8-1	2627.00	4.32	2176.41	47.70	2416.96	24.07	17.15	9.95
AT4	at4b 8-1b	2635.89	5.03	2559.26	79.97	2601.83	35.52	2.91	1.64
AT4	at4b 10-1	2641.38	1.58	2570.78	57.15	2610.04	25.14	2.67	1.50
AT4	at4b 11-1	2637.65	1.96	2608.08	69.79	2624.34	30.33	1.12	0.62
AT4	at4b 12-1	2622.09	2.54	2344.49	60.89	2495.80	28.63	10.59	6.06
AT4	at4b 17-1	2614.09	2.56	2282.78	52.64	2461.92	25.29	12.67	7.28
AT4	at4b 18-1a	2646.25	4.07	2382.15	70.69	2527.02	33.00	9.98	5.73
AT4	at4b 18-1b	2650.41	6.74	2645.78	82.11	2647.98	35.98	0.17	0.08
AT4	at4b 31-1	2550.42	3.86	1852.74	42.10	2204.45	23.68	27.36	15.95
AT4	at4b 34-1	2620.89	6.69	2278.35	76.05	2463.56	36.96	13.07	7.52
AT4	at4b 35-1	2639.38	2.79	2379.51	53.24	2521.94	24.89	9.85	5.65
AT4	at4b 36-1	2644.09	1.58	2830.30	66.76	2722.43	27.39	-7.04	-3.96
AT4	at4b 33-2	2643.74	1.39	2595.93	53.10	2622.45	23.21	1.81	1.01
AT4	at4b 40-1	2649.40	2.31	2672.51	61.44	2658.95	26.35	-0.87	-0.51
AT4	at4b 19-1a	2634.30	2.43	2331.83	73.99	2496.63	34.81	11.48	6.60
AT4	at4b 20-1	2625.85	4.22	2433.91	55.71	2539.58	25.83	7.31	4.16
AT4	at4b 22-1	2652.50	1.29	2627.12	63.09	2641.06	27.29	0.96	0.53
AT4	at4b 23-1	2584.31	5.80	2181.94	68.58	2396.13	34.25	15.57	8.94
AT4	at4b 24-1	2644.47	1.58	2712.81	73.93	2673.40	31.21	-2.58	-1.47
AT4	at4b 25-1b	2641.15	2.69	2019.28	74.26	2344.20	38.76	23.55	13.86
AT4	at4b 26-1	2631.71	2.15	2550.08	59.83	2595.40	26.49	3.10	1.75
AT4	at4b 27-1	2619.10	2.92	2331.99	54.66	2488.22	25.90	10.96	6.28
AT4	at4b 28-1	2638.23	2.33	2601.00	56.17	2621.57	24.58	1.41	0.78
AT4	at4b 29-1a	2635.17	2.52	2622.77	56.83	2629.35	24.74	0.47	0.25
AT4	at4b 29-1b	2597.95	4.60	2395.80	71.41	2506.37	33.19	7.78	4.41
AT4	at4 9-1	2639.20	2.88	2625.19	65.80	2632.68	28.59	0.53	0.28
AT4	at4 10-1	2639.04	1.95	2580.79	54.73	2613.13	24.05	2.21	1.24
AT4	at4 11-1	2628.16	2.81	2459.75	50.02	2552.71	22.87	6.41	3.64
AT4	at4 12-1a	2569.78	3.81	2011.99	75.04	2301.27	39.20	21.71	12.57
AT4	at4 12-1b	2634.17	1.31	2711.47	68.62	2666.98	28.98	-2.93	-1.67
AT4	at4 13-1	2638.76	2.05	2738.60	56.59	2681.09	23.85	-3.78	-2.14
AT4	at4 37-1	2616.73	2.27	2408.16	63.75	2522.59	29.35	7.97	4.54
AT4	at4 38-1	2641.58	1.58	2711.28	82.19	2671.10	34.66	-2.64	-1.50
AT4	at4 58-1a	2632.32	3.18	2443.48	62.80	2547.60	28.75	7.17	4.09
AT4	at4 58-1b	2617.16	8.12	2821.13	134.05	2703.33	55.22	-7.79	-4.36
AT4	at4 59-1	2606.77	4.95	2294.59	99.86	2463.52	47.44	11.98	6.86
AT4	at4 60-1	2639.57	2.14	2546.29	64.69	2598.14	28.65	3.53	2.00
AT4	at4 61-1	2590.68	6.64	2191.33	70.04	2404.29	35.04	15.41	8.86
AT4	at4 62-1	2630.96	1.40	2587.05	77.33	2611.33	33.71	1.67	0.93
AT4	at4 70-1	2625.03	3.01	2437.22	68.94	2540.63	31.52	7.15	4.07
AT4	at4 71-1	2642.18	1.02	2641.18	58.78	2641.32	25.32	0.04	0.01

Table 3: Sample MK01

Sample	Analysis	$^{238}U/^{206}Pb$	1 σ %	$^{207}Pb/^{206}Pb$	1s %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1 σ %	ρ
MK01	mk01 1-1	3.26	2.60	0.16	0.26	6.93	2.61	0.31	2.60	1.00
MK01	mk01 1-1	3.26	1.79	0.16	0.17	6.94	1.80	0.31	1.79	1.00
MK01	mk01 2-1 a	3.76	2.80	0.16	0.24	5.95	2.81	0.27	2.80	1.00
MK01	mk01 2-1 b	2.19	2.10	0.18	0.26	11.31	2.11	0.46	2.10	0.99
MK01	mk01 3-1	2.12	2.00	0.18	0.27	11.45	2.01	0.47	2.00	0.99
MK01	mk01 4-1a	2.29	1.74	0.18	0.16	10.66	1.75	0.44	1.74	1.00
MK01	mk01 4-1b	1.99	1.62	0.18	0.10	12.37	1.62	0.50	1.62	1.00
MK01	mk01 5-1	1.97	1.84	0.18	0.12	12.49	1.84	0.51	1.84	1.00
MK01	91500-5	5.73	1.89	0.08	0.23	1.82	1.90	0.17	1.89	0.99
MK01	mk01 8-1	3.31	2.59	0.16	0.75	6.65	2.70	0.30	2.59	0.96
MK01	mk01 9-1	2.78	1.80	0.17	0.22	8.24	1.82	0.36	1.80	0.99
MK01	mk01 9-2	2.18	2.09	0.18	0.16	11.35	2.10	0.46	2.09	1.00
MK01	mk01 10-1	2.03	1.74	0.18	0.12	12.07	1.74	0.49	1.74	1.00
MK01	mk01 10-2	2.08	1.87	0.18	0.20	11.77	1.88	0.48	1.87	0.99
MK01	mk01 11-1	2.16	1.89	0.18	0.12	11.29	1.89	0.46	1.89	1.00
MK01	mk01 11-2	2.08	1.93	0.18	0.15	11.75	1.93	0.48	1.93	1.00
MK01	mk01 12-1	1.91	1.65	0.18	0.16	12.80	1.66	0.52	1.65	1.00
MK01	mk01 13-1	2.04	1.60	0.18	0.21	11.83	1.61	0.49	1.60	0.99
MK01	mk01 15-1	2.43	1.84	0.17	0.15	9.76	1.85	0.41	1.84	1.00
MK01	mk01 16-1	2.13	2.10	0.18	0.30	11.44	2.12	0.47	2.10	0.99
MK01	mk01 17-1	2.68	2.75	0.17	0.35	8.65	2.78	0.37	2.75	0.99
MK01	mk01 18-1	1.91	1.82	0.18	0.30	12.89	1.84	0.52	1.82	0.99
MK01	mk01 19-1	2.46	1.42	0.17	0.34	9.61	1.46	0.41	1.42	0.97
MK01	mk01 22-1	2.02	1.11	0.18	0.32	12.18	1.16	0.49	1.11	0.96
MK01	mk01 25-1	1.99	0.76	0.18	0.32	12.27	0.82	0.50	0.76	0.92
MK01	mk01 29-1	2.08	1.10	0.18	0.31	11.76	1.15	0.48	1.10	0.96
MK01	mk01 160-1	2.00	0.64	0.18	0.31	12.28	0.71	0.50	0.64	0.90
MK01	mk01 157-1	3.09	1.98	0.17	0.31	7.45	2.00	0.32	1.98	0.99
MK01	mk01 155-1	2.81	4.77	0.16	0.73	7.96	4.83	0.36	4.77	0.99
MK01	mk01 154-1	2.74	1.04	0.17	0.38	8.55	1.11	0.36	1.04	0.94
MK01	mk01 153-1	1.99	0.84	0.18	0.35	12.30	0.91	0.50	0.84	0.92
MK01	mk01 150-1	1.92	1.17	0.18	0.31	12.82	1.21	0.52	1.17	0.97
MK01	mk01 149-1	2.04	0.98	0.18	0.31	11.97	1.03	0.49	0.98	0.95
MK01	mk01 146-1	2.84	1.31	0.17	0.46	8.10	1.38	0.35	1.31	0.94
MK01	mk01 146-2	3.01	0.51	0.16	0.46	7.52	0.69	0.33	0.51	0.75
MK01	mk01 143-1	2.50	0.85	0.17	0.36	9.59	0.92	0.40	0.85	0.92
MK01	mk01 143-2	2.01	1.38	0.18	0.30	12.23	1.42	0.50	1.38	0.98
MK01	mk01 140-1	1.88	1.17	0.18	0.31	12.95	1.21	0.53	1.17	0.97
MK01	mk01 139-1	1.96	1.04	0.18	0.30	12.52	1.08	0.51	1.04	0.96

Table 3: Sample MK01; Continued

				Ages				Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2 σ abs	$^{206}Pb/^{238}U$	2 σ abs	$^{207}Pb/^{235}U$	2 σ abs	6-38/7-6	6-38/7-35
MK01	mk01 1-1	2496.87	4.37	1724.03	78.09	2102.29	45.29	30.95	17.99
MK01	mk01 1-1	2500.22	2.85	1723.73	53.95	2103.88	31.44	31.06	18.07
MK01	mk01 2-1 a	2479.99	4.01	1519.54	75.50	1968.06	47.79	38.73	22.79
MK01	mk01 2-1 b	2647.81	4.30	2427.53	84.28	2548.96	38.68	8.32	4.76
MK01	mk01 3-1	2618.25	4.49	2488.58	81.87	2560.25	36.93	4.95	2.80
MK01	mk01 4-1a	2622.31	2.72	2339.93	68.11	2493.77	32.02	10.77	6.17
MK01	mk01 4-1b	2636.78	1.63	2629.43	69.64	2633.16	30.07	0.28	0.14
MK01	mk01 5-1	2641.45	2.06	2643.63	79.30	2641.97	34.09	-0.08	-0.06
MK01	91500-5	1081.91	4.59	1037.68	36.07	1051.73	24.60	4.09	1.34
MK01	mk01 8-1	2450.95	12.74	1702.58	77.19	2065.59	46.61	30.53	17.57
MK01	mk01 9-1	2518.84	3.70	1982.36	61.24	2258.01	32.37	21.30	12.21
MK01	mk01 9-2	2645.29	2.68	2437.01	84.36	2551.92	38.42	7.87	4.50
MK01	mk01 10-1	2635.18	1.98	2578.98	73.38	2610.16	32.12	2.13	1.19
MK01	mk01 10-2	2630.63	3.25	2530.82	77.97	2586.20	34.67	3.79	2.14
MK01	mk01 11-1	2622.32	2.00	2454.47	76.55	2547.03	34.66	6.40	3.63
MK01	mk01 11-2	2627.85	2.44	2530.31	80.08	2584.41	35.50	3.71	2.09
MK01	mk01 12-1	2627.52	2.71	2714.95	72.71	2664.69	30.76	-3.33	-1.89
MK01	mk01 13-1	2610.48	3.48	2567.01	67.34	2590.95	29.74	1.67	0.92
MK01	mk01 15-1	2578.74	2.42	2221.87	68.87	2412.76	33.48	13.84	7.91
MK01	mk01 16-1	2621.01	4.94	2483.73	85.95	2559.60	38.83	5.24	2.96
MK01	mk01 17-1	2541.38	5.91	2041.66	95.63	2301.36	49.30	19.66	11.28
MK01	mk01 18-1	2642.29	4.97	2712.27	79.92	2671.93	34.11	-2.65	-1.51
MK01	mk01 19-1	2570.70	5.68	2201.33	52.93	2398.23	26.59	14.37	8.21
MK01	mk01 22-1	2642.74	5.32	2587.67	47.29	2618.25	21.52	2.08	1.17
MK01	mk01 25-1	2627.86	5.25	2622.68	32.53	2625.18	15.29	0.20	0.10
MK01	mk01 29-1	2630.69	5.13	2529.41	45.99	2585.61	21.21	3.85	2.17
MK01	mk01 160-1	2631.75	5.13	2618.99	27.42	2625.77	13.23	0.48	0.26
MK01	mk01 157-1	2530.67	5.19	1805.22	62.06	2167.10	35.27	28.67	16.70
MK01	mk01 155-1	2476.33	12.39	1965.17	159.59	2226.05	83.53	20.64	11.72
MK01	mk01 154-1	2560.55	6.31	2002.83	35.81	2291.42	19.97	21.78	12.59
MK01	mk01 153-1	2633.27	5.80	2621.35	35.96	2627.66	16.89	0.45	0.24
MK01	mk01 150-1	2640.29	5.12	2703.00	51.50	2666.85	22.56	-2.38	-1.36
MK01	mk01 149-1	2627.48	5.09	2570.38	41.40	2602.02	19.06	2.17	1.22
MK01	mk01 146-1	2528.56	7.64	1943.57	43.72	2242.51	24.72	23.14	13.33
MK01	mk01 146-2	2499.51	7.67	1849.05	16.43	2175.16	12.21	26.02	14.99
MK01	mk01 143-1	2593.90	5.99	2171.18	31.23	2396.05	16.81	16.30	9.39
MK01	mk01 143-2	2634.93	5.05	2607.42	59.09	2622.51	26.26	1.04	0.58
MK01	mk01 140-1	2625.26	5.21	2744.76	52.01	2676.04	22.55	-4.55	-2.57
MK01	mk01 139-1	2635.24	5.01	2657.42	45.09	2644.42	20.14	-0.84	-0.49

Table 4: Sample H1

Sample	Analysis	$^{238}U/^{206}Pb$	1 σ %	$^{207}Pb/^{206}Pb$	1s %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1 σ %	ρ
H1	h1 1-1b	12.06	3.28	0.16	1.08	1.88	3.46	0.08	3.28	0.95
H1	h1 2-1	2.11	2.37	0.18	0.92	11.99	2.54	0.47	2.37	0.93
H1	h1 2-2	4.72	1.89	0.18	0.85	5.17	2.07	0.21	1.89	0.91
H1	h1 4-1	2.00	1.74	0.18	0.80	12.43	1.92	0.50	1.74	0.91
H1	h1 5-1a	5.08	2.12	0.18	0.83	4.82	2.28	0.20	2.12	0.93
H1	h1 5-1b	3.16	2.84	0.18	0.82	7.90	2.95	0.32	2.84	0.96
H1	h1 5-2	8.84	2.88	0.12	1.48	1.88	3.23	0.11	2.88	0.89
H1	h1 6-1a	2.40	2.05	0.17	0.83	10.06	2.21	0.42	2.05	0.93
H1	h1 7-1	7.07	2.31	0.18	0.81	3.59	2.45	0.14	2.31	0.94
H1	h1 9-1a	5.09	1.82	0.18	0.83	4.89	2.00	0.20	1.82	0.91
H1	h1 9-1b	9.47	2.54	0.18	0.84	2.66	2.67	0.11	2.54	0.95
H1	h1 10-1	3.95	1.59	0.17	0.81	5.95	1.78	0.25	1.59	0.89
H1	h1 11-1	2.14	1.51	0.18	0.81	11.77	1.71	0.47	1.51	0.88
H1	h1 14-1a	2.50	1.91	0.17	0.84	9.62	2.09	0.40	1.91	0.92
H1	h1 14-1b	2.01	2.23	0.18	0.82	12.17	2.37	0.50	2.23	0.94
H1	h1 15-1	2.81	1.98	0.17	0.81	8.21	2.14	0.36	1.98	0.93
H1	h1 16-1	8.72	1.56	0.09	1.00	1.47	1.85	0.11	1.56	0.84
H1	h1 17-1	4.81	1.68	0.18	0.81	5.04	1.86	0.21	1.68	0.90
H1	h1 18-1a	4.29	1.56	0.16	0.82	5.15	1.76	0.23	1.56	0.89
H1	h1 18-1b	3.78	2.95	0.17	1.00	6.11	3.11	0.26	2.95	0.95
H1	h1 19-1	20.00	3.45	0.16	1.00	1.08	3.60	0.05	3.45	0.96
H1	h1 19-2a	2.90	5.66	0.18	0.81	8.57	5.72	0.34	5.66	0.99
H1	h1 20-1	2.04	1.92	0.19	0.81	12.57	2.08	0.49	1.92	0.92
H1	h1 20-2a	3.85	2.55	0.18	0.81	6.61	2.68	0.26	2.55	0.95
H1	h1 20-2b	3.11	2.67	0.18	0.93	7.89	2.82	0.32	2.67	0.94
H1	h1 21-1a	2.25	2.49	0.18	0.84	11.18	2.62	0.44	2.49	0.95
H1	h1 21-1b	2.80	6.84	0.18	0.85	8.88	6.90	0.36	6.84	0.99
H1	h1 26-1	6.04	2.13	0.14	1.56	3.24	2.64	0.17	2.13	0.81
H1	h1 28-1	2.15	1.80	0.18	0.82	11.39	1.98	0.47	1.80	0.91
H1	h1 33-1	2.13	1.73	0.18	0.80	11.86	1.91	0.47	1.73	0.91
H1	h1 34-1	12.06	5.35	0.14	0.98	1.57	5.43	0.08	5.35	0.98
H1	h1 35-1	2.71	2.06	0.17	0.81	8.66	2.21	0.37	2.06	0.93
H1	h1 38-1	7.64	1.95	0.09	1.59	1.70	2.52	0.13	1.95	0.77
H1	h1 39-1	5.43	2.91	0.14	0.96	3.58	3.07	0.18	2.91	0.95
H1	h1 41-1	4.32	2.63	0.16	1.06	5.02	2.84	0.23	2.63	0.93
H1	h1B 6-1	3.27	2.72	0.18	0.81	7.39	2.84	0.31	2.72	0.96
H1	h1B 7-1	2.03	2.10	0.18	0.83	12.37	2.26	0.49	2.10	0.93
H1	h1B 8-1	2.08	1.64	0.18	0.81	12.08	1.83	0.48	1.64	0.90
H1	h1b 10-1	2.20	1.39	0.18	0.81	11.34	1.61	0.45	1.39	0.86
H1	h1b 11-1	4.29	1.99	0.15	1.23	4.80	2.34	0.23	1.99	0.85
H1	h1b 12-1a	3.34	2.28	0.17	0.84	6.98	2.43	0.30	2.28	0.94
H1	h1b 12-1b	2.15	1.61	0.18	0.81	11.56	1.80	0.47	1.61	0.89
H1	h1b 14-1	2.28	1.48	0.18	0.87	11.00	1.72	0.44	1.48	0.86
H1	h1b 16-1	2.00	1.80	0.19	0.81	13.00	1.97	0.50	1.80	0.91
H1	h1b 21-1	1.94	1.68	0.18	0.81	12.79	1.87	0.52	1.68	0.90
H1	h1b 22-1	2.06	1.74	0.18	0.81	12.00	1.92	0.49	1.74	0.91
H1	h1b 23-1	3.37	1.82	0.18	0.82	7.30	2.00	0.30	1.82	0.91
H1	h1b 25-1	2.27	1.59	0.18	0.85	10.83	1.80	0.44	1.59	0.88
H1	h1b 29-1	3.65	2.52	0.17	0.95	6.47	2.69	0.27	2.52	0.94
H1	h1b 31-1a	4.56	3.62	0.17	1.07	5.12	3.77	0.22	3.62	0.96
H1	h1b 37-1	5.51	2.66	0.16	1.37	4.05	2.99	0.18	2.66	0.89

Table 4: Sample H1; Continued

				Ages				Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2 σ abs	$^{206}Pb/^{238}U$	2 σ abs	$^{207}Pb/^{235}U$	2 σ abs	6-38/7-6	6-38/7-35
H1	h1 1-1b	2503.29	18.21	513.34	32.33	1074.10	44.84	79.49	52.21
H1	h1 2-1	2687.54	15.14	2498.11	97.57	2603.64	46.60	7.05	4.05
H1	h1 2-2	2626.89	14.20	1237.68	42.40	1847.57	34.67	52.88	33.01
H1	h1 4-1	2654.94	13.34	2615.02	74.46	2637.16	35.43	1.50	0.84
H1	h1 5-1a	2630.25	13.76	1159.05	44.83	1788.44	37.58	55.93	35.19
H1	h1 5-1b	2661.97	13.52	1774.50	87.50	2220.18	51.91	33.34	20.07
H1	h1 5-2	1966.79	26.35	690.63	37.55	1074.52	41.98	64.89	35.73
H1	h1 6-1a	2605.77	13.79	2246.78	77.25	2439.87	40.00	13.78	7.91
H1	h1 7-1	2689.83	13.41	852.71	36.79	1546.78	38.15	68.30	44.87
H1	h1 9-1a	2659.32	13.83	1156.30	38.40	1801.00	33.20	56.52	35.80
H1	h1 9-1b	2677.24	13.93	647.02	31.16	1316.85	38.70	75.83	50.87
H1	h1 10-1	2564.22	13.52	1454.03	41.17	1968.76	30.49	43.30	26.15
H1	h1 11-1	2679.21	13.32	2470.47	61.74	2586.37	31.56	7.79	4.48
H1	h1 14-1a	2599.05	14.01	2171.79	70.01	2399.20	37.66	16.44	9.48
H1	h1 14-1b	2629.31	13.55	2603.38	94.72	2617.57	43.56	0.99	0.54
H1	h1 15-1	2533.73	13.57	1960.01	66.53	2254.13	37.97	22.64	13.05
H1	h1 16-1	1490.17	18.95	699.65	20.66	918.60	22.17	53.05	23.84
H1	h1 17-1	2615.67	13.45	1216.96	37.08	1826.11	31.06	53.47	33.36
H1	h1 18-1a	2458.33	13.84	1351.49	37.86	1844.63	29.49	45.02	26.73
H1	h1 18-1b	2531.63	16.75	1514.37	79.03	1991.47	52.88	40.18	23.96
H1	h1 19-1	2422.19	17.02	314.50	21.17	744.07	37.25	87.02	57.73
H1	h1 19-2a	2656.58	13.48	1908.95	184.51	2293.24	99.07	28.14	16.76
H1	h1 20-1	2709.28	13.28	2569.45	80.74	2647.98	38.38	5.16	2.97
H1	h1 20-2a	2694.19	13.36	1488.46	67.45	2060.16	46.13	44.75	27.75
H1	h1 20-2b	2632.69	15.39	1798.94	83.23	2218.38	49.67	31.67	18.91
H1	h1 21-1a	2678.49	13.96	2367.50	97.74	2538.28	47.78	11.61	6.73
H1	h1 21-1b	2656.23	14.07	1968.72	228.14	2325.56	118.66	25.88	15.34
H1	h1 26-1	2250.63	26.94	987.98	38.95	1466.62	40.19	56.10	32.64
H1	h1 28-1	2629.06	13.57	2464.37	73.33	2555.33	36.25	6.26	3.56
H1	h1 33-1	2679.58	13.30	2485.31	71.14	2593.33	35.19	7.25	4.17
H1	h1 34-1	2191.68	17.06	513.62	52.56	957.55	65.24	76.56	46.36
H1	h1 35-1	2561.83	13.50	2023.31	71.21	2302.89	39.53	21.02	12.14
H1	h1 38-1	1516.99	30.03	792.62	29.01	1009.63	31.70	47.75	21.49
H1	h1 39-1	2239.34	16.62	1089.71	58.14	1544.76	47.55	51.34	29.46
H1	h1 41-1	2430.32	18.00	1341.00	63.49	1823.26	47.01	44.82	26.45
H1	h1B 6-1	2612.34	13.47	1717.97	81.55	2160.16	49.55	34.24	20.47
H1	h1B 7-1	2673.56	13.81	2582.14	88.58	2633.27	41.53	3.42	1.94
H1	h1B 8-1	2674.84	13.35	2530.04	68.25	2610.83	33.70	5.41	3.09
H1	h1b 10-1	2662.51	13.45	2415.77	55.97	2551.80	29.68	9.27	5.33
H1	h1b 11-1	2341.64	21.06	1349.43	48.21	1785.18	38.55	42.37	24.41
H1	h1b 12-1a	2550.08	14.00	1687.41	67.31	2108.72	42.22	33.83	19.98
H1	h1b 12-1b	2656.72	13.42	2461.95	65.47	2569.78	33.10	7.33	4.20
H1	h1b 14-1	2668.47	14.48	2348.13	57.95	2523.50	31.49	12.00	6.95
H1	h1b 16-1	2730.17	13.35	2614.41	76.75	2679.75	36.50	4.24	2.44
H1	h1b 21-1	2655.17	13.42	2677.97	73.32	2664.57	34.57	-0.86	-0.50
H1	h1b 22-1	2645.65	13.45	2552.18	72.83	2604.20	35.32	3.53	2.00
H1	h1b 23-1	2638.78	13.58	1675.89	53.62	2149.16	35.09	36.49	22.02
H1	h1b 25-1	2636.42	14.14	2354.01	62.23	2508.30	32.92	10.71	6.15
H1	h1b 29-1	2572.82	15.83	1559.39	69.37	2041.86	46.24	39.39	23.63
H1	h1b 31-1a	2552.23	17.89	1278.49	83.31	1839.90	62.11	49.91	30.51
H1	h1b 37-1	2478.42	23.08	1074.51	52.35	1645.08	47.53	56.65	34.68

Appendix 4b: Upper Congo Granite Massif U-Pb Zircon Data

Table 1: Sample W10

Sample	Analysis	$^{238}U/^{206}Pb$	1σ%	$^{207}Pb/^{206}Pb$	1s %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1σ %	ρ
W10	w10b 3-1	2.77	1.50	0.17	0.38	8.49	1.55	0.36	1.50	0.97
W10	w10b 5-1a	2.20	1.13	0.18	0.33	10.99	1.18	0.45	1.13	0.96
W10	w10b 5-1b	1.92	1.27	0.18	0.38	12.68	1.33	0.52	1.27	0.96
W10	w10b 6-1	1.99	1.32	0.18	0.29	12.36	1.35	0.50	1.32	0.98
W10	w10b 10-1	2.07	1.18	0.18	0.38	11.63	1.24	0.48	1.18	0.95
W10	w10b 12-1	2.18	1.11	0.18	0.30	11.21	1.15	0.46	1.11	0.97
W10	w10b 13-1	2.07	1.19	0.18	0.30	11.85	1.23	0.48	1.19	0.97
W10	w10b 13-2	2.05	1.11	0.18	0.30	11.95	1.15	0.49	1.11	0.96
W10	w10b 14-1	2.04	1.47	0.18	0.31	11.95	1.50	0.49	1.47	0.98
W10	w10b 15-1a	3.50	1.84	0.17	0.78	6.52	2.00	0.29	1.84	0.92
W10	w10b 17-1	2.85	1.15	0.17	0.31	8.27	1.20	0.35	1.15	0.97
W10	w10b 18-1	2.20	1.26	0.17	0.30	10.98	1.30	0.46	1.26	0.97
W10	w10b 19-1	1.92	1.62	0.18	0.29	12.72	1.64	0.52	1.62	0.98
W10	w10b 21-1	1.97	1.12	0.18	0.29	12.44	1.16	0.51	1.12	0.97
W10	w10b 22-1	2.01	1.30	0.18	0.30	12.14	1.33	0.50	1.30	0.97
W10	w10b 23-1	2.52	1.17	0.17	0.30	9.40	1.21	0.40	1.17	0.97
W10	w10b 25-1	2.15	1.25	0.18	0.32	11.31	1.29	0.46	1.25	0.97
W10	w10b 28-1	1.96	1.23	0.18	0.30	12.45	1.27	0.51	1.23	0.97
W10	w10b 29-1	3.54	1.32	0.16	0.40	6.20	1.38	0.28	1.32	0.96
W10	w10b 29-2	2.83	1.24	0.17	0.43	8.08	1.31	0.35	1.24	0.94
W10	w10b 32-1	2.17	1.32	0.17	0.32	11.09	1.36	0.46	1.32	0.97
W10	w10b 34-1a	2.12	1.50	0.18	0.32	11.51	1.54	0.47	1.50	0.98
W10	w10b 34-1b	1.98	1.51	0.18	0.31	12.32	1.54	0.51	1.51	0.98
W10	w10b 35-1	2.01	1.22	0.18	0.31	12.12	1.26	0.50	1.22	0.97
W10	w10b 36-1	2.02	1.34	0.18	0.30	12.09	1.38	0.50	1.34	0.98
W10	w10b 37-1a	2.10	1.63	0.18	0.29	11.57	1.66	0.48	1.63	0.98
W10	w10b 37-1b	1.94	1.35	0.18	0.34	12.47	1.39	0.51	1.35	0.97
W10	w10b 37-2	2.02	1.54	0.18	0.29	12.00	1.57	0.49	1.54	0.98
W10	w10b 38-1	3.03	1.16	0.17	0.32	7.58	1.20	0.33	1.16	0.96
W10	w10b 40-1	2.09	1.23	0.18	0.29	11.70	1.26	0.48	1.23	0.97
W10	w10b 41-1	1.97	1.31	0.18	0.30	12.39	1.35	0.51	1.31	0.97
W10	w10b 45-1	2.34	1.04	0.17	0.38	10.23	1.11	0.43	1.04	0.94
W10	w10b 46-1	2.14	1.60	0.17	0.33	11.24	1.63	0.47	1.60	0.98
W10	w10b 47-1	1.99	1.32	0.18	0.30	12.25	1.35	0.50	1.32	0.98
W10	w10b 48-1	2.08	1.46	0.18	0.30	11.66	1.49	0.48	1.46	0.98
W10	w10b 50-1	3.09	1.37	0.16	0.36	7.35	1.42	0.32	1.37	0.97
W10	w10b 51-1	2.12	1.59	0.18	0.31	11.43	1.62	0.47	1.59	0.98
W10	w10b 54-1	2.02	1.52	0.18	0.30	12.04	1.55	0.50	1.52	0.98
W10	w10b 54-2	2.38	1.62	0.17	0.34	10.00	1.65	0.42	1.62	0.98
W10	w10b 55-1	2.15	1.53	0.18	0.30	11.23	1.56	0.46	1.53	0.98
W10	w10b 66-1	1.96	1.26	0.18	0.31	12.38	1.30	0.51	1.26	0.97
W10	w10b 67-1	2.80	1.72	0.17	0.37	8.23	1.76	0.36	1.72	0.98
W10	w10b 59-1	1.87	1.32	0.18	0.30	13.05	1.35	0.54	1.32	0.97

Table 1: Sample W10; Continued

				Ages				Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	6-38/7-6	6-38/7-35
W10	w10b 3-1	2564.38	6.37	1987.03	51.16	2285.13	27.77	22.51	13.05
W10	w10b 5-1a	2611.27	5.56	2414.87	45.45	2522.64	21.74	7.52	4.27
W10	w10b 5-1b	2624.45	6.29	2699.09	55.87	2656.20	24.68	-2.84	-1.61
W10	w10b 6-1	2636.56	4.81	2627.04	56.65	2632.00	25.05	0.36	0.19
W10	w10b 10-1	2606.65	6.27	2536.99	49.43	2575.47	22.95	2.67	1.49
W10	w10b 12-1	2628.67	4.98	2432.56	44.68	2540.54	21.15	7.46	4.25
W10	w10b 13-1	2633.25	5.01	2542.34	49.99	2592.82	22.81	3.45	1.95
W10	w10b 13-2	2631.16	5.05	2562.48	46.76	2600.59	21.34	2.61	1.47
W10	w10b 14-1	2624.03	5.10	2571.52	62.05	2600.58	27.76	2.00	1.12
W10	w10b 15-1a	2513.63	13.06	1619.19	52.48	2048.15	34.57	35.58	20.94
W10	w10b 17-1	2568.05	5.24	1938.72	38.54	2261.22	21.44	24.51	14.26
W10	w10b 18-1	2605.94	5.00	2418.96	50.81	2521.55	23.91	7.18	4.07
W10	w10b 19-1	2628.37	4.86	2700.16	70.90	2658.88	30.46	-2.73	-1.55
W10	w10b 21-1	2629.98	4.86	2650.19	48.42	2638.33	21.50	-0.77	-0.45
W10	w10b 22-1	2626.55	4.95	2601.31	55.35	2615.10	24.69	0.96	0.53
W10	w10b 23-1	2575.13	5.03	2155.41	42.67	2377.85	21.91	16.30	9.35
W10	w10b 25-1	2622.72	5.30	2457.92	51.05	2548.82	23.86	6.28	3.57
W10	w10b 28-1	2621.24	4.96	2662.44	53.46	2638.67	23.53	-1.57	-0.90
W10	w10b 29-1	2448.59	6.80	1602.72	37.45	2004.17	23.90	34.55	20.03
W10	w10b 29-2	2517.17	7.29	1951.27	41.52	2240.53	23.42	22.48	12.91
W10	w10b 32-1	2602.51	5.33	2442.31	53.32	2530.37	24.93	6.16	3.48
W10	w10b 34-1a	2623.97	5.35	2492.99	61.86	2565.45	28.32	4.99	2.82
W10	w10b 34-1b	2624.69	5.13	2636.28	64.82	2629.31	28.46	-0.44	-0.27
W10	w10b 35-1	2623.16	5.18	2603.03	52.00	2613.95	23.33	0.77	0.42
W10	w10b 36-1	2624.40	5.06	2596.21	57.10	2611.66	25.49	1.07	0.59
W10	w10b 37-1a	2620.63	4.82	2508.38	67.38	2570.52	30.48	4.28	2.42
W10	w10b 37-1b	2614.28	5.72	2675.37	58.65	2640.30	25.77	-2.34	-1.33
W10	w10b 37-2	2614.95	4.90	2591.04	65.41	2604.06	28.98	0.91	0.50
W10	w10b 38-1	2525.96	5.38	1837.58	37.01	2182.86	21.38	27.25	15.82
W10	w10b 40-1	2629.79	4.89	2518.71	50.90	2580.31	23.31	4.22	2.39
W10	w10b 41-1	2623.71	5.06	2649.58	56.76	2634.51	25.00	-0.99	-0.57
W10	w10b 45-1	2589.47	6.31	2297.81	40.03	2455.46	20.25	11.26	6.42
W10	w10b 46-1	2602.91	5.52	2470.53	65.25	2543.47	29.98	5.09	2.87
W10	w10b 47-1	2627.59	4.98	2620.33	56.62	2624.01	25.11	0.28	0.14
W10	w10b 48-1	2616.00	4.99	2530.53	60.63	2577.84	27.42	3.27	1.84
W10	w10b 50-1	2507.02	6.03	1805.93	43.07	2154.91	25.04	27.97	16.19
W10	w10b 51-1	2613.80	5.14	2491.03	65.27	2558.86	29.76	4.70	2.65
W10	w10b 54-1	2616.56	4.93	2597.25	64.75	2607.69	28.67	0.74	0.40
W10	w10b 54-2	2586.02	5.66	2258.08	61.40	2434.43	30.09	12.68	7.24
W10	w10b 55-1	2608.96	5.00	2460.64	62.47	2542.36	28.74	5.69	3.21
W10	w10b 66-1	2615.23	5.23	2659.36	54.53	2633.95	24.05	-1.69	-0.96
W10	w10b 67-1	2531.78	6.18	1966.75	57.93	2256.68	31.30	22.32	12.85
W10	w10b 59-1	2624.67	5.06	2763.50	59.03	2683.59	25.22	-5.29	-2.98

Table 2: Sample W13

Sample	Analysis	$^{238}U/^{206}Pb$	1σ%	$^{207}Pb/^{206P}b$	1s %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1σ %	ρ
W13	W13 Z6_1	2.61	2.10	0.17	0.25	9.13	2.11	0.38	2.10	0.99
W13	W13 Z8_1	3.55	1.84	0.16	0.28	6.17	1.86	0.28	1.84	0.99
W13	W13 Z12_1	2.35	1.78	0.17	0.29	10.16	1.81	0.43	1.78	0.99
W13	W13 Z12_2	2.23	1.79	0.17	0.26	10.78	1.81	0.45	1.79	0.99
W13	W13 Z13_1	2.94	2.19	0.17	0.27	7.89	2.21	0.34	2.19	0.99
W13	W13 Z13_2	3.14	1.96	0.16	0.37	7.23	1.99	0.32	1.96	0.98
W13	W13 Z17_1	2.42	2.17	0.17	0.24	9.85	2.19	0.41	2.17	0.99
W13	W13 Z19_1	2.67	1.75	0.17	0.32	8.92	1.77	0.38	1.75	0.98
W13	W13 Z19_2	2.87	2.70	0.17	0.55	8.12	2.76	0.35	2.70	0.98
W13	W13 Z20_1	2.55	2.27	0.17	0.26	9.38	2.28	0.39	2.27	0.99
W13	W13 Z21_1	3.86	2.03	0.15	0.35	5.40	2.06	0.26	2.03	0.99
W13	W13 Z21_2	5.00	2.14	0.14	0.59	3.92	2.22	0.20	2.14	0.96
W13	W13 Z22_2	2.04	2.08	0.18	0.23	11.97	2.10	0.49	2.08	0.99
W13	W13 Z23_2	2.62	1.84	0.17	0.24	8.98	1.86	0.38	1.84	0.99
W13	W13 Z24_1a	2.09	2.00	0.17	0.25	11.53	2.01	0.48	2.00	0.99
W13	W13 Z24_2	2.21	2.50	0.17	0.45	10.69	2.54	0.45	2.50	0.98
W13	W13 Z27_1a	2.69	1.85	0.17	0.31	8.87	1.87	0.37	1.85	0.99
W13	W13 Z27_1b	2.24	1.93	0.18	0.26	10.79	1.95	0.45	1.93	0.99
W13	W13 Z29_1	3.90	1.94	0.15	0.49	5.43	2.00	0.26	1.94	0.97
W13	W13 Z29_2	2.05	1.98	0.18	0.24	11.98	1.99	0.49	1.98	0.99
W13	W13 Z30_1	1.99	1.93	0.18	0.33	12.33	1.96	0.50	1.93	0.99
W13	W13 Z30_2	1.94	2.11	0.18	0.23	12.65	2.12	0.52	2.11	0.99
W13	W13 Z31_1	2.28	2.30	0.17	0.45	10.43	2.34	0.44	2.30	0.98
W13	W13 Z31_2	2.64	1.83	0.17	0.40	8.93	1.88	0.38	1.83	0.98
W13	W13 Z33_1	2.53	1.76	0.17	0.30	9.36	1.79	0.40	1.76	0.99
W13	W13 Z33_2	2.41	1.77	0.17	0.25	9.83	1.79	0.41	1.77	0.99
W13	W13 Z34_1	2.30	1.87	0.18	0.25	10.50	1.89	0.43	1.87	0.99
W13	W13 Z40_1	1.92	1.90	0.18	0.23	12.79	1.91	0.52	1.90	0.99
W13	W13 Z41_1	1.97	1.95	0.18	0.25	12.27	1.96	0.51	1.95	0.99
W13	W13 Z44_1	1.96	1.85	0.17	0.25	12.31	1.87	0.51	1.85	0.99
W13	W13 Z47_1	3.24	2.12	0.16	0.38	6.93	2.15	0.31	2.12	0.98
W13	W13 Z48_1	4.59	1.89	0.14	0.69	4.30	2.01	0.22	1.89	0.94
W13	W13 Z48_2	2.09	1.97	0.18	0.26	11.54	1.99	0.48	1.97	0.99
W13	W13 Z51_1	2.32	2.21	0.17	0.53	10.31	2.28	0.43	2.21	0.97
W13	W13 Z51_2	2.61	1.96	0.17	0.26	9.04	1.97	0.38	1.96	0.99
W13	W13 Z52_1	1.98	1.84	0.18	0.24	12.40	1.85	0.50	1.84	0.99
W13	W13 Z52_2	2.10	2.10	0.18	0.23	11.65	2.12	0.48	2.10	0.99

Table 2: Sample W13; Continued

				Ages				Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	6-38/7-6	6-38/7-35
W13	W13 Z6_1	2586.32	4.15	2090.34	74.43	2351.01	37.93	19.18	11.09
W13	W13 Z8_1	2441.02	4.71	1601.74	52.04	1999.66	32.04	34.38	19.90
W13	W13 Z12_1	2588.40	4.79	2285.66	68.29	2449.04	32.87	11.70	6.67
W13	W13 Z12_2	2602.80	4.37	2386.52	70.98	2504.76	33.06	8.31	4.72
W13	W13 Z13_1	2539.44	4.45	1888.10	71.30	2218.16	39.01	25.65	14.88
W13	W13 Z13_2	2506.88	6.30	1780.62	60.69	2140.40	34.98	28.97	16.81
W13	W13 Z17_1	2584.22	3.98	2233.09	81.49	2421.27	39.52	13.59	7.77
W13	W13 Z19_1	2583.08	5.27	2053.70	61.14	2330.33	31.90	20.49	11.87
W13	W13 Z19_2	2551.26	9.27	1924.63	89.25	2244.51	48.66	24.56	14.25
W13	W13 Z20_1	2590.07	4.39	2135.33	81.96	2375.96	41.07	17.56	10.13
W13	W13 Z21_1	2358.34	5.97	1486.56	53.80	1884.97	34.77	36.97	21.14
W13	W13 Z21_2	2251.11	10.22	1176.11	45.84	1616.88	35.29	47.75	27.26
W13	W13 Z22_2	2626.74	3.83	2572.25	87.75	2602.43	38.53	2.07	1.16
W13	W13 Z23_2	2565.78	4.00	2083.78	65.24	2336.41	33.38	18.79	10.81
W13	W13 Z24_1a	2604.33	4.22	2521.63	82.74	2567.31	36.91	3.18	1.78
W13	W13 Z24_2	2570.81	7.59	2407.02	99.68	2496.47	46.13	6.37	3.58
W13	W13 Z27_1a	2589.42	5.18	2036.31	64.24	2324.74	33.65	21.36	12.41
W13	W13 Z27_1b	2609.26	4.27	2378.99	76.43	2504.85	35.59	8.83	5.02
W13	W13 Z29_1	2387.19	8.41	1471.44	50.86	1889.66	33.78	38.36	22.13
W13	W13 Z29_2	2639.38	3.91	2557.26	82.87	2602.91	36.62	3.11	1.75
W13	W13 Z30_1	2636.14	5.56	2622.66	82.69	2629.85	36.17	0.51	0.27
W13	W13 Z30_2	2635.48	3.85	2679.11	91.65	2653.90	39.10	-1.66	-0.95
W13	W13 Z31_1	2583.64	7.53	2343.71	89.80	2474.03	42.55	9.29	5.27
W13	W13 Z31_2	2567.21	6.68	2071.40	64.63	2330.82	33.70	19.31	11.13
W13	W13 Z33_1	2577.10	5.01	2146.34	63.94	2374.38	32.24	16.72	9.60
W13	W13 Z33_2	2578.23	4.25	2234.83	66.66	2418.81	32.51	13.32	7.61
W13	W13 Z34_1	2609.68	4.08	2326.12	72.67	2480.18	34.41	10.87	6.21
W13	W13 Z40_1	2636.06	3.82	2703.22	83.29	2664.54	35.39	-2.55	-1.45
W13	W13 Z41_1	2614.52	4.08	2640.96	83.81	2625.59	36.19	-1.01	-0.59
W13	W13 Z44_1	2605.82	4.22	2659.38	80.04	2628.65	34.44	-2.06	-1.17
W13	W13 Z47_1	2488.64	6.44	1731.89	64.05	2102.56	37.52	30.41	17.63
W13	W13 Z48_1	2266.89	11.82	1269.73	43.43	1692.99	32.60	43.99	25.00
W13	W13 Z48_2	2607.01	4.32	2519.12	81.82	2567.69	36.55	3.37	1.89
W13	W13 Z51_1	2594.75	8.77	2306.84	85.29	2462.71	41.27	11.10	6.33
W13	W13 Z51_2	2571.70	4.31	2088.63	69.41	2342.13	35.44	18.78	10.82
W13	W13 Z52_1	2640.09	3.94	2630.44	78.85	2635.47	34.22	0.37	0.19
W13	W13 Z52_2	2630.93	3.85	2509.25	86.88	2576.70	38.84	4.62	2.62

Table 3: Sample WP06

Sample	Analysis	$^{238}U/^{206}Pb$	1σ%	$^{207}Pb/^{206P}b$	1s %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1σ %	ρ
WP06	WP06 z1_1	2.45	1.03	0.18	0.16	9.93	1.04	0.41	1.03	0.99
WP06	WP06 z2_2	2.69	1.50	0.17	0.32	8.92	1.54	0.37	1.50	0.98
WP06	WP06 z3_1a	2.11	0.66	0.18	0.09	11.74	0.66	0.47	0.66	0.99
WP06	WP06 z3_1b	2.05	1.21	0.18	0.34	11.95	1.25	0.49	1.21	0.96
WP06	WP06 z7_1	2.22	1.25	0.18	0.31	11.00	1.28	0.45	1.25	0.97
WP06	WP06 z10_1	2.12	0.98	0.18	0.11	11.61	0.98	0.47	0.98	0.99
WP06	WP06 z10_1a	2.13	0.77	0.18	0.08	11.66	0.77	0.47	0.77	0.99
WP06	WP06 z10_1b	1.98	1.11	0.18	0.19	12.37	1.13	0.50	1.11	0.99
WP06	WP06 z11_1	2.04	0.72	0.18	0.12	12.11	0.73	0.49	0.72	0.99
WP06	WP06 z12_1	2.06	0.78	0.18	0.17	11.99	0.80	0.49	0.78	0.98
WP06	WP06 z12_2	2.09	0.79	0.18	0.17	11.80	0.81	0.48	0.79	0.98
WP06	WP06 z15_1	2.09	0.79	0.18	0.17	11.80	0.81	0.48	0.79	0.98
WP06	WP06 z15_2	2.42	1.09	0.18	0.19	10.10	1.11	0.41	1.09	0.99
WP06	WP06 z19_1	2.70	3.24	0.17	0.17	8.81	3.24	0.37	3.24	1.00
WP06	WP06 z23_1	2.05	0.84	0.18	0.10	11.97	0.85	0.49	0.84	0.99
WP06	WP06 z23_2	2.04	1.22	0.18	0.08	11.97	1.23	0.49	1.22	1.00
WP06	WP06 z27_1	2.26	0.66	0.18	0.29	10.68	0.72	0.44	0.66	0.91
WP06	WP06 z28_1	2.04	0.98	0.18	0.14	12.10	0.99	0.49	0.98	0.99
WP06	WP06 z29_1	1.98	0.95	0.18	0.12	12.43	0.96	0.51	0.95	0.99
WP06	WP06 z32_1	2.04	1.67	0.18	0.07	12.02	1.68	0.49	1.67	1.00
WP06	WP06 z33_1	1.87	1.10	0.18	0.07	13.16	1.10	0.54	1.10	1.00
WP06	WP06 z33_2	2.79	1.51	0.17	0.22	8.47	1.52	0.36	1.51	0.99
WP06	WP06 z36_1a	2.26	1.61	0.18	0.44	10.77	1.66	0.44	1.61	0.97
WP06	WP06 z36_1b	2.68	1.31	0.17	0.24	8.81	1.33	0.37	1.31	0.98
WP06	WP06 z41_1	2.62	0.94	0.17	0.20	9.08	0.96	0.38	0.94	0.98
WP06	WP06 z43_1	2.24	0.65	0.18	0.16	10.83	0.67	0.45	0.65	0.97
WP06	WP06 z45_1	2.10	1.72	0.18	0.06	11.69	1.72	0.48	1.72	1.00
WP06	WP06 z46_1	2.05	0.76	0.18	0.07	11.99	0.76	0.49	0.76	1.00
WP06	WP06 z55_1	2.42	0.48	0.18	0.15	10.02	0.51	0.41	0.48	0.96
WP06	WP06 z56_1	2.72	1.01	0.17	0.17	8.75	1.02	0.37	1.01	0.99
WP06	WP06 z57_1	2.08	0.52	0.18	0.12	11.82	0.54	0.48	0.52	0.97
WP06	WP06 z61_1	1.90	0.42	0.18	0.06	12.85	0.42	0.53	0.42	0.99
WP06	WP06 z64_1	2.16	0.50	0.18	0.15	11.36	0.52	0.46	0.50	0.96
WP06	WP06 z65_1	2.03	0.61	0.18	0.13	12.06	0.62	0.49	0.61	0.98
WP06	WP06 z68_1a	2.04	1.02	0.18	0.12	12.06	1.03	0.49	1.02	0.99
WP06	WP06 z68_1b	1.93	0.79	0.18	0.11	12.71	0.80	0.52	0.79	0.99
WP06	WP06 z69_1	2.37	0.88	0.18	0.07	10.21	0.88	0.42	0.88	1.00
WP06	WP06 z69_2	2.09	0.77	0.18	0.14	11.71	0.79	0.48	0.77	0.98
WP06	WP06 z71_1	2.34	1.88	0.18	0.14	10.30	1.88	0.43	1.88	1.00
WP06	WP06 z74_1	1.95	1.13	0.18	0.09	12.53	1.13	0.51	1.13	1.00
WP06	WP06 z75_1	2.42	1.14	0.17	0.06	9.87	1.14	0.41	1.14	1.00
WP06	WP06 z78_1	2.04	0.69	0.18	0.18	12.15	0.72	0.49	0.69	0.97
WP06	WP06 z79_1a	2.30	1.61	0.18	0.07	10.76	1.61	0.43	1.61	1.00
WP06	WP06 z79_1b	1.98	1.35	0.18	0.12	12.36	1.35	0.50	1.35	1.00
WP06	WP06 z80_1b	2.11	0.76	0.18	0.26	11.59	0.80	0.47	0.76	0.95
WP06	WP06 z80_2a	2.22	0.98	0.18	0.16	10.99	0.99	0.45	0.98	0.99
WP06	WP06 z80_2b	2.12	0.76	0.18	0.11	11.40	0.77	0.47	0.76	0.99

Table 3: Sample WP06; Continued

		Ages						Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	6-38/7-6	6-38/7-35
WP06	WP06 z1_1	2622.48	2.73	2203.67	38.36	2427.99	19.07	15.97	9.24
WP06	WP06 z2_2	2595.32	5.37	2040.41	52.40	2330.12	27.71	21.38	12.43
WP06	WP06 z3_1a	2654.26	1.47	2496.71	27.08	2584.19	12.30	5.94	3.39
WP06	WP06 z3_1b	2627.77	5.72	2565.70	50.89	2600.11	23.25	2.36	1.32
WP06	WP06 z7_1	2630.89	5.15	2392.95	49.62	2523.45	23.62	9.04	5.17
WP06	WP06 z10_1	2640.59	1.77	2489.94	40.18	2573.42	18.19	5.71	3.24
WP06	WP06 z10_1a	2656.98	1.29	2478.05	31.52	2577.26	14.34	6.73	3.85
WP06	WP06 z10_1b	2632.59	3.18	2633.95	47.81	2632.76	20.94	-0.05	-0.05
WP06	WP06 z11_1	2649.05	2.03	2567.40	30.23	2612.87	13.52	3.08	1.74
WP06	WP06 z12_1	2646.51	2.87	2549.03	32.91	2603.28	14.93	3.68	2.08
WP06	WP06 z12_2	2643.19	2.88	2521.06	33.05	2588.91	15.10	4.62	2.62
WP06	WP06 z15_1	2643.19	2.88	2521.06	33.05	2588.91	15.10	4.62	2.62
WP06	WP06 z15_2	2631.15	3.09	2226.46	40.94	2444.03	20.24	15.38	8.90
WP06	WP06 z19_1	2580.49	2.81	2033.46	111.88	2318.38	57.43	21.20	12.29
WP06	WP06 z23_1	2635.83	1.68	2560.36	35.44	2602.29	15.75	2.86	1.61
WP06	WP06 z23_2	2625.19	1.41	2573.47	51.69	2602.09	22.72	1.97	1.10
WP06	WP06 z27_1	2608.30	4.85	2360.62	25.87	2495.71	13.24	9.50	5.41
WP06	WP06 z28_1	2645.19	2.32	2570.65	41.40	2612.13	18.39	2.82	1.59
WP06	WP06 z29_1	2637.87	2.05	2638.09	40.97	2637.54	17.83	-0.01	-0.02
WP06	WP06 z32_1	2634.09	1.21	2570.11	70.57	2605.62	30.94	2.43	1.36
WP06	WP06 z33_1	2635.07	1.21	2767.33	49.33	2691.10	20.60	-5.02	-2.83
WP06	WP06 z33_2	2573.40	3.60	1972.58	51.07	2282.33	27.31	23.35	13.57
WP06	WP06 z36_1a	2622.12	7.25	2359.96	63.17	2503.11	30.46	10.00	5.72
WP06	WP06 z36_1b	2571.17	4.00	2044.29	45.84	2318.94	24.06	20.49	11.84
WP06	WP06 z41_1	2581.97	3.39	2086.14	33.49	2346.47	17.48	19.20	11.09
WP06	WP06 z43_1	2614.04	2.65	2381.21	25.79	2508.55	12.35	8.91	5.08
WP06	WP06 z45_1	2635.96	0.93	2510.73	71.22	2580.19	31.73	4.75	2.69
WP06	WP06 z46_1	2639.07	1.21	2559.18	31.99	2603.59	14.20	3.03	1.71
WP06	WP06 z55_1	2611.76	2.47	2233.35	18.21	2436.64	9.29	14.49	8.34
WP06	WP06 z56_1	2584.53	2.80	2018.47	34.79	2312.72	18.43	21.90	12.72
WP06	WP06 z57_1	2640.68	2.04	2526.98	21.74	2590.14	9.97	4.31	2.44
WP06	WP06 z61_1	2630.67	0.94	2720.65	18.57	2668.90	7.93	-3.42	-1.94
WP06	WP06 z64_1	2632.72	2.43	2455.31	20.23	2553.24	9.61	6.74	3.84
WP06	WP06 z65_1	2628.83	2.15	2585.41	25.85	2609.41	11.59	1.65	0.92
WP06	WP06 z68_1a	2636.04	2.05	2575.57	43.09	2609.14	19.05	2.29	1.29
WP06	WP06 z68_1b	2630.07	1.78	2696.59	34.70	2658.32	14.89	-2.53	-1.44
WP06	WP06 z69_1	2613.26	1.23	2267.86	33.47	2454.26	16.16	13.22	7.59
WP06	WP06 z69_2	2632.52	2.34	2517.59	32.20	2581.34	14.62	4.37	2.47
WP06	WP06 z71_1	2608.89	2.28	2289.79	71.90	2462.39	34.23	12.23	7.01
WP06	WP06 z74_1	2626.80	1.50	2669.48	49.23	2644.84	21.11	-1.63	-0.93
WP06	WP06 z75_1	2592.81	0.94	2225.80	42.76	2422.45	20.83	14.16	8.12
WP06	WP06 z78_1	2652.60	2.95	2570.33	29.35	2616.18	13.35	3.10	1.75
WP06	WP06 z79_1a	2649.94	1.20	2326.33	62.61	2502.76	29.53	12.21	7.05
WP06	WP06 z79_1b	2630.87	2.06	2635.04	57.99	2632.26	25.09	-0.16	-0.11
WP06	WP06 z80_1b	2628.79	4.31	2501.55	31.41	2572.02	14.89	4.84	2.74
WP06	WP06 z80_2a	2628.47	2.62	2392.95	39.02	2522.09	18.29	8.96	5.12
WP06	WP06 z80_2b	2610.02	1.90	2490.49	31.46	2556.49	14.31	4.58	2.58

Table 4: Sample H4

Sample	Analysis	$^{238}U/^{206}Pb$	1σ%	$^{207}Pb/^{206P}b$	1s %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1σ %	ρ
H4	H4z3_1a	4.22	2.28	0.15	0.51	5.03	2.33	0.24	2.28	0.98
H4	H4z3_1b	2.81	1.12	0.17	0.30	8.27	1.16	0.36	1.12	0.97
H4	H4z13_1a	2.34	0.35	0.18	0.34	10.55	0.49	0.43	0.35	0.72
H4	H4z13_1b	2.10	0.67	0.18	0.23	11.82	0.71	0.48	0.67	0.95
H4	H4z13_1c	1.92	1.12	0.18	0.18	12.73	1.13	0.52	1.12	0.99
H4	H4z13_2a	2.54	1.24	0.17	0.18	9.33	1.26	0.39	1.24	0.99
H4	H4z13_2b	2.13	1.83	0.17	0.17	11.27	1.84	0.47	1.83	1.00
H4	H4z14_1	3.58	1.40	0.16	0.26	6.00	1.42	0.28	1.40	0.98
H4	H4z16_1a	1.98	0.87	0.18	0.24	12.46	0.91	0.50	0.87	0.96
H4	H4z16_1b	1.85	0.66	0.18	0.17	13.28	0.69	0.54	0.66	0.97
H4	H4z17_1	1.99	0.78	0.18	0.17	12.28	0.80	0.50	0.78	0.98
H4	H4z19_1	2.16	0.91	0.18	0.18	11.31	0.92	0.46	0.91	0.98
H4	H4z19_2	1.92	1.02	0.18	0.29	12.82	1.06	0.52	1.02	0.96
H4	H4z20_1	2.29	0.94	0.18	0.17	10.81	0.96	0.44	0.94	0.98
H4	H4z25_1a	2.08	0.92	0.18	0.18	11.80	0.93	0.48	0.92	0.98
H4	H4z25_1b	1.92	1.14	0.18	0.19	12.69	1.15	0.52	1.14	0.99
H4	H4z25_2a	2.01	1.39	0.18	0.18	12.28	1.40	0.50	1.39	0.99
H4	H4z31_1a	2.24	1.19	0.18	0.20	11.10	1.20	0.45	1.19	0.99
H4	H4z31_1b	1.94	0.85	0.18	0.19	12.67	0.88	0.51	0.85	0.98
H4	H4z32_1a	2.04	0.92	0.18	0.17	12.14	0.93	0.49	0.92	0.98
H4	H4z32_1b	1.89	0.87	0.18	0.19	13.02	0.89	0.53	0.87	0.98
H4	H4z33_1a	2.12	0.93	0.18	0.19	11.64	0.95	0.47	0.93	0.98
H4	H4z33_1b	1.98	1.09	0.18	0.26	12.32	1.12	0.51	1.09	0.97
H4	H4z35_1	1.85	1.13	0.18	0.20	13.26	1.15	0.54	1.13	0.98
H4	H4z36_1	2.05	0.55	0.18	0.17	12.02	0.58	0.49	0.55	0.95
H4	H4z37_1a	2.20	1.25	0.18	0.17	11.13	1.27	0.45	1.25	0.99
H4	H4z37_1b	1.93	0.77	0.18	0.20	12.65	0.80	0.52	0.77	0.97
H4	H4z38_1	1.90	0.66	0.18	0.18	12.91	0.69	0.53	0.66	0.96
H4	H4z39_1a	2.89	0.75	0.17	0.46	8.14	0.88	0.35	0.75	0.85
H4	H4z39_2	2.20	1.36	0.18	0.17	11.21	1.37	0.46	1.36	0.99
H4	H4z40_1	2.21	0.46	0.18	0.18	10.97	0.50	0.45	0.46	0.93
H4	H4z44_1	1.95	0.82	0.18	0.19	12.65	0.84	0.51	0.82	0.97
H4	H4z45_1a	2.18	1.05	0.18	0.19	11.36	1.06	0.46	1.05	0.98
H4	H4z45_1b	1.94	0.87	0.18	0.17	12.70	0.89	0.52	0.87	0.98
H4	H4z46_1	2.32	0.56	0.17	0.22	10.34	0.60	0.43	0.56	0.93
H4	H4z47_1	1.99	0.80	0.18	0.17	12.35	0.81	0.50	0.80	0.98
H4	H4z47_2a	2.15	0.50	0.18	0.18	11.50	0.53	0.46	0.50	0.94
H4	H4z47_2b	1.87	0.71	0.18	0.16	13.15	0.73	0.53	0.71	0.97
H4	H4z50_1	2.54	0.94	0.17	0.16	9.29	0.95	0.39	0.94	0.99
H4	H4z53_1	1.96	0.78	0.18	0.16	12.46	0.80	0.51	0.78	0.98
H4	H4z54_1b	1.83	0.38	0.18	0.16	13.44	0.42	0.55	0.38	0.92
H4	H4z57_1	3.40	0.54	0.16	0.44	6.52	0.70	0.29	0.54	0.78
H4	H4z58_1a	3.55	1.46	0.16	0.63	6.31	1.59	0.28	1.46	0.92
H4	H4z59_1a	2.43	1.41	0.17	0.33	9.91	1.45	0.41	1.41	0.97
H4	H4z59_1b	2.05	0.94	0.18	0.22	11.81	0.97	0.49	0.94	0.97
H4	H4z60_1	1.98	0.99	0.18	0.17	12.36	1.01	0.50	0.99	0.99
H4	H4z62_1	1.97	0.85	0.18	0.16	12.52	0.86	0.51	0.85	0.98
H4	H4z64_1	2.02	1.15	0.18	0.17	12.16	1.16	0.50	1.15	0.99
H4	H4z66_1	2.03	0.77	0.18	0.19	12.02	0.79	0.49	0.77	0.97

Table 4: Sample H4; Continued

				Ages				Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	6-38/7-6	6-38/7-35
H4	H4z3_1a	2389.52	8.68	1372.34	56.03	1824.62	38.77	42.57	24.79
H4	H4z3_1b	2545.41	5.04	1961.63	37.93	2261.30	20.88	22.93	13.25
H4	H4z13_1a	2646.48	5.58	2291.51	13.54	2484.17	8.98	13.41	7.76
H4	H4z13_1b	2656.25	3.78	2508.00	27.90	2590.41	13.22	5.58	3.18
H4	H4z13_1c	2632.20	2.96	2697.39	49.02	2659.86	21.06	-2.48	-1.41
H4	H4z13_2a	2576.43	3.00	2139.79	45.17	2370.71	22.81	16.95	9.74
H4	H4z13_2b	2599.12	2.88	2480.40	75.03	2545.82	33.77	4.57	2.57
H4	H4z14_1	2411.57	4.41	1587.69	39.19	1975.84	24.43	34.16	19.65
H4	H4z16_1a	2645.36	4.01	2632.93	37.60	2639.54	16.87	0.47	0.25
H4	H4z16_1b	2634.46	2.91	2789.17	30.04	2699.88	12.90	-5.87	-3.31
H4	H4z17_1	2632.49	2.77	2619.24	33.41	2626.30	14.83	0.50	0.27
H4	H4z19_1	2628.74	2.96	2451.52	36.91	2549.27	17.11	6.74	3.83
H4	H4z19_2	2638.33	4.79	2705.43	44.76	2666.77	19.71	-2.54	-1.45
H4	H4z20_1	2652.01	2.89	2332.80	36.71	2507.00	17.62	12.04	6.95
H4	H4z25_1a	2635.53	3.06	2530.25	38.20	2588.71	17.33	3.99	2.26
H4	H4z25_1b	2626.80	3.12	2697.24	49.87	2656.74	21.44	-2.68	-1.52
H4	H4z25_2a	2643.14	3.00	2604.04	59.12	2625.67	25.92	1.48	0.82
H4	H4z31_1a	2658.06	3.32	2378.11	47.08	2531.76	22.20	10.53	6.07
H4	H4z31_1b	2639.50	3.17	2677.43	37.34	2655.46	16.35	-1.44	-0.83
H4	H4z32_1a	2648.14	2.85	2574.48	38.80	2615.49	17.35	2.78	1.57
H4	H4z32_1b	2637.42	3.11	2740.09	38.65	2680.96	16.62	-3.89	-2.21
H4	H4z33_1a	2645.85	3.16	2489.03	38.44	2575.97	17.67	5.93	3.37
H4	H4z33_1b	2622.79	4.36	2638.79	46.92	2629.32	20.79	-0.61	-0.36
H4	H4z35_1	2631.77	3.35	2788.42	50.83	2698.04	21.40	-5.95	-3.35
H4	H4z36_1	2640.25	2.85	2562.77	23.35	2605.85	10.80	2.93	1.65
H4	H4z37_1a	2632.21	2.86	2414.76	50.33	2534.31	23.32	8.26	4.72
H4	H4z37_1b	2623.56	3.36	2694.21	33.87	2653.62	14.89	-2.69	-1.53
H4	H4z38_1	2631.27	3.06	2730.17	29.48	2673.28	12.90	-3.76	-2.13
H4	H4z39_1a	2566.16	7.76	1913.45	24.86	2246.47	15.86	25.44	14.82
H4	H4z39_2	2640.50	2.81	2418.85	54.69	2540.85	25.27	8.39	4.80
H4	H4z40_1	2610.53	3.08	2410.58	18.60	2520.24	9.24	7.66	4.35
H4	H4z44_1	2642.70	3.16	2670.03	35.69	2654.08	15.69	-1.03	-0.60
H4	H4z45_1a	2652.18	3.15	2431.90	42.30	2553.44	19.68	8.31	4.76
H4	H4z45_1b	2638.42	2.86	2683.92	38.15	2657.63	16.58	-1.72	-0.99
H4	H4z46_1	2599.38	3.73	2307.23	21.60	2465.46	11.07	11.24	6.42
H4	H4z47_1	2636.08	2.77	2626.10	34.22	2631.31	15.15	0.38	0.20
H4	H4z47_2a	2649.42	2.99	2459.58	20.22	2564.59	9.80	7.17	4.09
H4	H4z47_2b	2638.17	2.73	2761.92	31.84	2690.58	13.67	-4.69	-2.65
H4	H4z50_1	2571.59	2.69	2138.50	34.15	2367.41	17.35	16.84	9.67
H4	H4z53_1	2624.40	2.62	2660.70	34.04	2639.71	14.90	-1.38	-0.80
H4	H4z54_1b	2636.16	2.66	2814.31	17.47	2711.30	7.83	-6.76	-3.80
H4	H4z57_1	2462.99	7.49	1662.36	15.92	2047.93	12.28	32.51	18.83
H4	H4z58_1a	2482.35	10.68	1599.98	41.11	2019.98	27.45	35.55	20.79
H4	H4z59_1a	2605.99	5.55	2218.71	52.79	2426.26	26.41	14.86	8.55
H4	H4z59_1b	2615.31	3.64	2557.21	39.76	2589.34	18.00	2.22	1.24
H4	H4z60_1	2634.72	2.86	2630.57	42.72	2632.50	18.75	0.16	0.07
H4	H4z62_1	2640.77	2.69	2649.48	36.65	2644.12	16.07	-0.33	-0.20
H4	H4z64_1	2634.63	2.91	2595.39	48.95	2617.07	21.59	1.49	0.83
H4	H4z66_1	2626.99	3.12	2579.67	32.75	2605.84	14.79	1.80	1.00

Appendix 4c: West Nile Gneiss U-Pb Zircon Data

Table 1: Sample NZ03

Sample	Analysis	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1σ %	ρ
NZ03	nz03 1-1	6.46	1.62	0.07	0.53	1.51	1.70	0.15	1.62	0.95
NZ03	nz03 6-1	6.03	1.45	0.07	0.66	1.67	1.59	0.17	1.45	0.91
NZ03	nz03 8-1	5.96	1.13	0.07	0.55	1.66	1.26	0.17	1.13	0.90
NZ03	nz03 10-1	6.08	0.59	0.07	0.70	1.62	0.92	0.16	0.59	0.64
NZ03	nz03 11-1	6.01	0.72	0.07	0.55	1.65	0.91	0.17	0.72	0.80
NZ03	nz03 14-1	5.71	1.60	0.07	0.55	1.73	1.69	0.18	1.60	0.95
NZ03	nz03 21-1	5.99	0.72	0.07	0.58	1.65	0.92	0.17	0.72	0.78
NZ03	nz03 22-1	6.09	0.79	0.07	0.51	1.63	0.94	0.16	0.79	0.84
NZ03	nz03 23-1	6.04	1.51	0.07	0.52	1.65	1.60	0.17	1.51	0.95
NZ03	nz03 23-2	6.32	0.46	0.07	0.54	1.57	0.71	0.16	0.46	0.65
NZ03	nz03 24-1	6.27	0.94	0.07	0.57	1.58	1.10	0.16	0.94	0.86
NZ03	nz03 25-1	7.84	2.51	0.07	0.85	1.25	2.65	0.13	2.51	0.95
NZ03	nz03 28-1	6.37	0.89	0.07	0.52	1.57	1.03	0.16	0.89	0.86
NZ03	nz03 31-1	6.08	0.67	0.07	0.52	1.63	0.85	0.16	0.67	0.79
NZ03	nz03 35-1	6.44	0.90	0.07	0.52	1.54	1.04	0.16	0.90	0.87
NZ03	nz03 41-1	6.03	1.27	0.07	0.56	1.64	1.38	0.17	1.27	0.91
NZ03	nz03 44-1	6.48	1.30	0.07	0.64	1.56	1.44	0.15	1.30	0.90
NZ03	nz03 47-1	5.98	1.85	0.07	0.55	1.67	1.93	0.17	1.85	0.96
NZ03	nz03b 11-1	6.58	1.45	0.07	0.55	1.51	1.55	0.15	1.45	0.94
NZ03	nz03b 29-1	6.07	1.34	0.07	0.58	1.62	1.46	0.16	1.34	0.92
NZ03	nz03b 31-1a	7.39	2.88	0.07	0.56	1.38	2.94	0.14	2.88	0.98
NZ03	nz03b 33-1	6.20	0.99	0.07	0.53	1.64	1.12	0.16	0.99	0.88
NZ03	nz03b 36-1	6.57	0.79	0.07	0.61	1.53	0.99	0.15	0.79	0.79
NZ03	nz03b 37-1	6.79	1.29	0.07	0.60	1.48	1.42	0.15	1.29	0.91
NZ03	nz03b 38-1	6.26	1.38	0.07	0.56	1.57	1.49	0.16	1.38	0.93
NZ03	nz03b 40-1	6.31	0.95	0.07	0.60	1.55	1.12	0.16	0.95	0.85
NZ03	nz03b 43-1	6.23	0.87	0.07	0.96	1.64	1.30	0.16	0.87	0.67
NZ03	nz03b 44-1a	6.91	1.11	0.07	0.51	1.45	1.22	0.14	1.11	0.91
NZ03	nz03b 44-1b	5.28	1.58	0.07	0.51	1.87	1.66	0.19	1.58	0.95
NZ03	nz03b 46-1	7.19	1.51	0.07	0.57	1.40	1.61	0.14	1.51	0.94
NZ03	nz03b 47-1	6.36	0.95	0.07	0.53	1.55	1.09	0.16	0.95	0.87
NZ03	nz03b 48-1	6.28	1.51	0.07	0.57	1.55	1.61	0.16	1.51	0.94
NZ03	nz03b 49-1	8.95	0.85	0.09	1.77	1.45	1.96	0.11	0.85	0.43

Table 1: Sample NZ03; Continued

		Ages						Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	6-38/7-6	6-38/7-35
NZ03	nz03 1-1	951.76	10.80	927.60	27.85	934.51	20.55	2.54	0.74
NZ03	nz03 6-1	1016.95	13.28	989.80	26.48	997.99	19.98	2.67	0.82
NZ03	nz03 8-1	979.79	11.27	1000.37	20.94	993.66	15.84	-2.10	-0.68
NZ03	nz03 10-1	969.92	14.28	981.27	10.73	977.49	11.43	-1.17	-0.39
NZ03	nz03 11-1	987.06	11.13	991.68	13.25	989.96	11.39	-0.47	-0.17
NZ03	nz03 14-1	977.59	11.16	1040.10	30.65	1019.86	21.52	-6.39	-1.98
NZ03	nz03 21-1	977.53	11.81	995.99	13.24	989.96	11.60	-1.89	-0.61
NZ03	nz03 22-1	986.00	10.47	979.54	14.38	981.25	11.81	0.66	0.17
NZ03	nz03 23-1	991.35	10.54	988.17	27.59	988.87	19.97	0.32	0.07
NZ03	nz03 23-2	980.05	11.04	947.44	8.12	957.03	8.78	3.33	1.00
NZ03	nz03 24-1	981.89	11.52	954.43	16.66	962.50	13.55	2.80	0.84
NZ03	nz03 25-1	954.39	17.45	774.09	36.49	821.88	29.42	18.89	5.81
NZ03	nz03 28-1	995.82	10.54	939.93	15.58	956.53	12.70	5.61	1.74
NZ03	nz03 31-1	988.32	10.56	980.97	12.17	982.96	10.61	0.74	0.20
NZ03	nz03 35-1	986.94	10.56	930.42	15.61	947.09	12.73	5.73	1.76
NZ03	nz03 41-1	977.79	11.40	989.26	23.18	985.42	17.31	-1.17	-0.39
NZ03	nz03 44-1	1025.48	12.89	925.70	22.30	955.44	17.72	9.73	3.11
NZ03	nz03 47-1	1004.12	11.20	997.00	34.15	998.94	24.30	0.71	0.19
NZ03	nz03b 11-1	993.18	11.12	912.67	24.57	936.28	18.74	8.11	2.52
NZ03	nz03b 29-1	966.73	11.84	982.57	24.31	977.40	18.12	-1.64	-0.53
NZ03	nz03b 31-1a	1042.17	11.22	817.76	44.14	880.37	34.00	21.53	7.11
NZ03	nz03b 33-1	1030.31	10.63	963.74	17.74	983.98	14.05	6.46	2.06
NZ03	nz03b 36-1	1009.90	12.30	913.16	13.41	941.68	12.14	9.58	3.03
NZ03	nz03b 37-1	1019.05	12.11	885.09	21.32	924.03	17.12	13.15	4.21
NZ03	nz03b 38-1	972.85	11.41	955.25	24.41	960.32	18.30	1.81	0.53
NZ03	nz03b 40-1	950.79	12.20	947.92	16.67	948.51	13.70	0.30	0.06
NZ03	nz03b 43-1	1042.24	19.45	960.31	15.53	985.28	16.26	7.86	2.53
NZ03	nz03b 44-1a	1010.54	10.42	870.75	18.00	910.93	14.57	13.83	4.41
NZ03	nz03b 44-1b	972.00	10.45	1118.16	32.44	1069.34	21.78	-15.04	-4.57
NZ03	nz03b 46-1	1013.06	11.56	839.90	23.72	888.69	18.93	17.09	5.49
NZ03	nz03b 47-1	978.57	10.84	941.06	16.69	952.08	13.41	3.83	1.16
NZ03	nz03b 48-1	951.41	11.61	951.83	26.64	951.42	19.71	-0.04	-0.04
NZ03	nz03b 49-1	1513.22	33.40	683.02	11.01	910.65	23.34	54.86	25.00

Table 2: Sample NZ07

Sample	Analysis	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{235}U$	1σ %	$^{206}Pb/^{238}U$	1σ %	ρ
NZ07	NZ7z1_1b	5.83	2.22	0.07	0.30	1.70	2.24	0.17	2.22	0.99
NZ07	NZ7z6_1	6.12	1.65	0.07	0.30	1.63	1.68	0.16	1.65	0.98
NZ07	NZ7z8_1	6.17	1.05	0.07	0.42	1.60	1.13	0.16	1.05	0.93
NZ07	NZ7z13_1	6.25	1.31	0.07	0.29	1.61	1.35	0.16	1.31	0.98
NZ07	NZ7z14_1	5.42	1.95	0.07	0.37	1.84	1.99	0.18	1.95	0.98
NZ07	NZ7z15_1	6.64	1.06	0.07	0.58	1.48	1.21	0.15	1.06	0.88
NZ07	NZ7z16_1	6.58	2.30	0.07	0.36	1.55	2.33	0.15	2.30	0.99
NZ07	NZ7z19_1	6.36	1.34	0.07	0.23	1.58	1.36	0.16	1.34	0.99
NZ07	NZ7z21_1	6.09	1.83	0.08	0.33	1.75	1.86	0.16	1.83	0.98
NZ07	NZ7z23_1	10.14	1.12	0.06	0.36	0.85	1.17	0.10	1.12	0.95
NZ07	NZ7z23_1b	5.82	0.99	0.07	0.24	1.70	1.02	0.17	0.99	0.97
NZ07	NZ7z26_1	5.82	0.99	0.07	0.38	1.69	1.06	0.17	0.99	0.93
NZ07	NZ7z29_1	5.67	1.76	0.07	0.21	1.76	1.77	0.18	1.76	0.99
NZ07	NZ7z36_1	5.86	1.00	0.07	0.26	1.68	1.03	0.17	1.00	0.97
NZ07	NZ7z39_1	5.93	0.59	0.07	0.26	1.68	0.65	0.17	0.59	0.91
NZ07	NZ7z40_1	5.76	0.43	0.07	0.21	1.72	0.48	0.17	0.43	0.90
NZ07	NZ7z44_1	5.97	1.31	0.07	0.25	1.65	1.34	0.17	1.31	0.98
NZ07	NZ7z49_1a	6.06	1.39	0.07	0.27	1.66	1.42	0.17	1.39	0.98
NZ07	NZ7z49_1b	5.12	1.23	0.07	0.36	2.00	1.28	0.20	1.23	0.96
NZ07	NZ7z61_1	6.20	0.81	0.08	0.71	1.74	1.07	0.16	0.81	0.75
NZ07	NZ7z64_1	6.91	0.66	0.07	0.29	1.47	0.72	0.14	0.66	0.91
NZ07	NZ7z68_1a	6.12	0.73	0.07	0.21	1.68	0.76	0.16	0.73	0.96
NZ07	NZ7z68_1b	5.23	0.51	0.07	0.25	1.92	0.57	0.19	0.51	0.90
NZ07	NZ7z69_1	5.70	0.63	0.07	0.30	1.73	0.69	0.18	0.63	0.90
NZ07	NZ7z70_1	5.66	1.41	0.07	0.29	1.78	1.44	0.18	1.41	0.98
NZ07	NZ7z75_1	5.70	1.08	0.07	0.29	1.73	1.12	0.18	1.08	0.97
NZ07	NZ7z77_1	6.09	0.58	0.07	0.20	1.66	0.61	0.16	0.58	0.95
NZ07	NZ7z83_1	6.41	0.83	0.07	0.25	1.57	0.87	0.16	0.83	0.96
NZ07	NZ7z85_1	5.97	0.78	0.08	0.87	1.75	1.17	0.17	0.78	0.66
NZ07	NZ7z88_1a	6.06	0.73	0.07	0.24	1.65	0.77	0.16	0.73	0.95
NZ07	NZ7z89-1	5.97	0.96	0.07	0.33	1.71	1.01	0.17	0.96	0.95

Table 2: Sample NZ07; Continued

		Ages						Discordance	
Sample	Analysis	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	6-38/7-6	6-38/7-35
NZ07	NZ7z1_1b	980.41	6.06	1019.91	41.69	1007.15	28.18	-4.03	-1.27
NZ07	NZ7z6_1	992.49	6.02	975.25	29.85	980.28	20.90	1.74	0.51
NZ07	NZ7z8_1	978.77	8.59	967.70	18.84	970.81	14.04	1.13	0.32
NZ07	NZ7z13_1	1019.44	5.94	956.27	23.30	975.34	16.73	6.20	1.95
NZ07	NZ7z14_1	992.33	7.50	1090.94	39.07	1058.25	25.79	-9.94	-3.09
NZ07	NZ7z15_1	971.12	11.87	904.73	17.90	923.97	14.59	6.84	2.08
NZ07	NZ7z16_1	1038.65	7.31	912.63	39.05	950.04	28.35	12.13	3.94
NZ07	NZ7z19_1	1012.36	4.65	941.36	23.35	962.61	16.72	7.01	2.21
NZ07	NZ7z21_1	1124.55	6.52	980.09	33.14	1025.49	23.68	12.85	4.43
NZ07	NZ7z23_1	685.43	7.65	606.24	12.90	623.03	10.85	11.55	2.69
NZ07	NZ7z23_1b	976.06	4.93	1021.63	18.68	1006.95	12.94	-4.67	-1.46
NZ07	NZ7z26_1	974.96	7.83	1021.47	18.68	1006.50	13.47	-4.77	-1.49
NZ07	NZ7z29_1	993.83	4.30	1047.90	33.88	1030.23	22.65	-5.44	-1.71
NZ07	NZ7z36_1	970.10	5.39	1015.01	18.70	1000.61	13.04	-4.63	-1.44
NZ07	NZ7z39_1	992.76	5.33	1004.60	11.02	1000.60	8.22	-1.19	-0.40
NZ07	NZ7z40_1	979.15	4.30	1032.26	8.12	1015.09	6.09	-5.42	-1.69
NZ07	NZ7z44_1	969.25	5.16	998.03	24.25	988.79	16.77	-2.97	-0.93
NZ07	NZ7z49_1a	1010.13	5.51	984.91	25.40	992.47	17.82	2.50	0.76
NZ07	NZ7z49_1b	1052.65	7.25	1149.68	25.84	1116.25	17.20	-9.22	-2.99
NZ07	NZ7z61_1	1152.28	14.07	963.41	14.42	1022.55	13.75	16.39	5.78
NZ07	NZ7z64_1	1028.95	5.91	871.74	10.80	917.14	8.71	15.28	4.95
NZ07	NZ7z68_1a	1052.47	4.21	975.67	13.28	999.31	9.66	7.30	2.37
NZ07	NZ7z68_1b	1014.69	5.06	1127.30	10.60	1089.19	7.59	-11.10	-3.50
NZ07	NZ7z69_1	975.58	6.07	1042.41	12.05	1020.78	8.90	-6.85	-2.12
NZ07	NZ7z70_1	1017.60	5.95	1049.08	27.33	1038.63	18.62	-3.09	-1.01
NZ07	NZ7z75_1	966.04	5.86	1042.85	20.80	1018.06	14.29	-7.95	-2.44
NZ07	NZ7z77_1	1025.69	4.04	980.43	10.51	994.23	7.73	4.41	1.39
NZ07	NZ7z83_1	1015.67	5.06	934.90	14.48	959.02	10.73	7.95	2.52
NZ07	NZ7z85_1	1087.79	17.50	998.62	14.34	1026.65	14.98	8.20	2.73
NZ07	NZ7z88_1a	1000.55	4.88	983.98	13.27	988.84	9.64	1.66	0.49
NZ07	NZ7z89-1	1042.13	6.57	998.21	17.65	1011.77	12.85	4.21	1.34

Appendix 5a: Karagba-Chaffeur-Durba Deposit-Host and Alteration EDS data

Table 1: Sample PB12-D02

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
PB12-D02A	SITE C E	4.30	7.13	89.58	101.00	Gold
PB12-D02A	SITE D E		10.90	88.81	99.70	Gold
PB12-D02A	SITE D F	3.27	7.26	87.72	98.25	Gold
PB12-D02A	SITE D G	2.91	7.89	82.28	93.08	Gold
PB12-D02A	SITE D H		7.82	91.18	99.00	Gold
PB12-D02A	SITE E F	2.06	6.62	88.61	97.29	Gold
PB12-D02A	SITE E G	2.12	8.49	89.91	100.52	Gold
PB12-D02A	SITE H E		10.74	88.53	99.27	Gold
PB12-D02A	SITE H F	2.40	5.37	92.54	100.31	Gold

Table 2: Sample PB12-D08

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
PB12-D08	SITE A C	1.25	9.43	83.22	93.90	Gold
PB12-D08	SITE D B	3.27	9.86	88.61	101.74	Gold
PB12-D08	SITE D C	3.44	9.90	82.96	96.30	Gold
PB12-D08	SITE D D	2.41	9.61	88.71	100.73	Gold

Table 3: Sample 2013-D5

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
2013-D5	SITE 2 C		11.15	84.82	95.97	Gold
2013-D5	SITE 2 C2	0.96	11.25	87.16	99.37	Gold
2013-D5	SITE 2 C3	2.97	11.41	83.98	98.35	Gold
2013-D5	SITE 2 D	1.33	11.62	87.66	100.61	Gold
2013-D5	SITE 2 D2	7.75	9.05	60.53	77.32	Gold
2013-D5	SITE 2 D3	3.98	13.01	81.81	98.80	Gold
2013-D5	SITE 2 E	1.10	11.19	84.96	97.24	Gold
2013-D5	SITE 2 E2	2.22	11.59	84.51	98.32	Gold
2013-D5	SITE 2 G		10.85	85.19	96.04	Gold
2013-D5	SITE 2 G2	0.62	10.19	82.40	93.21	Gold
2013-D5	SITE 2 I	0.89	9.16	84.93	94.98	Gold
2013-D5	SITE 2 J	1.40	11.04	80.66	93.09	Gold
2013-D5	SITE 2 L	2.83	11.64	85.13	99.60	Gold
2013-D5	SITE 1 L2	4.19	10.36	84.60	99.16	Gold
2013-D5	SITE 2 L3	1.69	11.62	86.44	99.75	Gold
2013-D5	SITE 2 M	1.10	10.78	82.36	94.24	Gold
2013-D5	SITE 2 O	1.33	11.62	85.41	98.36	Gold
2013-D5	SITE 2 O3	2.40	11.79	87.80	101.99	Gold
2013-D5	SITE 2 P2	1.98	10.52	87.79	100.30	Gold
2013-D5	SITE 2 R	1.21	11.22	84.10	96.54	Gold
2013-D5	SITE 2 R2	1.86	10.50	83.01	95.37	Gold
2013-D5	SITE 2 R3	2.45	11.02	86.13	99.60	Gold
2013-D5	SITE 2 S		11.07	82.74	93.81	Gold
2013-D5	SITE 2 V	2.12	12.29	82.78	97.20	Gold

Table 4: Sample 2013-D5 Second analysis

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
2013-D5	SITE 2 H	1.38	11.04	83.87	96.28	Gold
2013-D5	SITE 2 L		11.02	84.11	95.13	Gold
2013-D5	SITE 2 N	1.07	9.61	76.26	86.95	Gold
2013-D5	SITE 2 P	1.46	11.66	82.29	95.40	Gold

Table 5: Sample 2013-D12

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
2013-D12	SITE 1 H		10.59	90.01	100.60	Gold
2013-D12	SITE 4 E		9.64	89.07	98.72	Gold
2013-D12	SITE 4 I		10.22	88.27	98.49	Gold
2013-D12	SITE 4 K	0.65	8.70	81.82	91.16	Gold
2013-D12	SITE 4 O	2.65	9.44	84.68	96.77	Gold

Table 6: Sample 2013-D96

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
2013-D96	SITE 1 L2	2.97	13.24	77.96	94.16	Gold
2013-D96	SITE 2 L		9.49	86.53	96.02	Gold
2013-D96	SITE 2 N	1.06	8.79	85.80	95.66	Gold

Table 7: Sample 2013-D97

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
2013-D97	Spectrum 1		9.17	87.22	96.38	Gold
2013-D97	Spectrum 11		7.30	88.73	96.02	Gold
2013-D97	Spectrum 12	0.71	7.49	89.21	97.41	Gold
2013-D97	Spectrum 13		7.59	89.66	97.25	Gold
2013-D97	Spectrum 14		7.24	89.10	96.35	Gold
2013-D97	Spectrum 15		6.94	84.75	91.69	Gold
2013-D97	Spectrum 16		7.11	88.36	95.47	Gold
2013-D97	Spectrum 18		12.21	81.78	93.99	Gold
2013-D97	Spectrum 22		8.52	86.26	94.78	Gold
2013-D97	Spectrum 23		9.10	86.53	95.64	Gold
2013-D97	Spectrum 49		10.01	85.87	95.88	Gold
2013-D97	Spectrum 50		8.14	80.00	88.14	Gold
2013-D97	Spectrum 54		9.64	78.52	88.16	Gold

Table 8: Sample 2013-D102

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
2013-D102	SITE 2 F		10.23	84.43	94.66	Gold
2013-D102	SITE 2		10.13	84.49	94.62	Gold

Table 9: Sample 2013-D103

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
2013-D103	site 1 j	4.33	5.78	82.44	92.55	Gold
2013-D103	site 2 g	3.27	6.59	90.07	99.92	Gold
2013-D103	site 2 j	3.85	5.90	87.50	97.25	Gold
2013-D103	site 4 b	0.99	8.69	85.37	95.04	Gold
2013-D103	site 4 b2	1.25	9.67	86.15	97.08	Gold
2013-D103	site 4 c	0.92	8.69	82.92	92.52	Gold
2013-D103	site 4 e		9.00	84.41	93.42	Gold

Table 10: Sample KCD25

Sample	Analysis	Fe	Ag	Au	Total	Mineral
			Element %			
KCD25	KCD 25 B		10.96	93.52	104.49	Gold
KCD25	KCD 25 D		11.29	90.11	101.40	Gold
KCD25	KCD 25 F		10.55	86.04	96.58	Gold
KCD25	KCD 25 G		12.47	97.87	110.33	Gold
KCD25	KCD25 H		9.59	85.48	95.07	Gold
KCD25	KCD 25 H		10.62	91.17	101.78	Gold
KCD25	KCD 25 J		12.00	89.09	101.09	Gold

Appendix 5a: Karagba-Chaffeur-Durba Deposit-Host and Alteration EDS data

Table 1: Sample PB12-D01

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	WO_3	Total	Mineral
							wt%							
PB12-D01	SITE 1 A	105.82											105.82	Quartz
PB12-D01	SITE 1 B	106.20											106.20	Quartz
PB12-D01	SITE 1 C	46.65	0.73	30.61	4.44		0.77		9.96				93.17	Al-celadonite
PB12-D01	SITE 1 D	47.45	0.69	30.01	4.34		1.06		9.90				93.44	Al-celadonite
PB12-D01	SITE 1 E							54.90			40.70		95.60	Fluoroapatite
PB12-D01	SITE 2 A	105.28											105.28	Quartz
PB12-D01	SITE 2 B	105.62											105.62	Quartz
PB12-D01	SITE 2 C							54.72			41.32	2.62	98.66	Fluoroapatite
PB12-D01	SITE 2 D				21.49	0.50	7.07	26.96					56.01	Ankerite
PB12-D01	SITE 3 E	48.81	0.64	30.69	4.72		0.96		10.08				95.90	Al-celadonite
PB12-D01	SITE 2 F	47.13	0.63	30.09	4.70		0.91		10.26				93.72	Al-celadonite

Table 2: Sample PB12-D02

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	Total	Mineral
						wt%						
PB12-D02	site 1 a	104.67									104.67	Quartz
PB12-D02	site 1 b				48.61	0.47	8.46	0.40			57.94	Siderite
PB12-D02	site 1 c	47.76		26.47	9.34		0.74		10.40		94.71	Al-celadonite
PB12-D02	site 1 d				92.84						92.84	Magnetite
PB12-D02	site 1 e				49.18	0.53	7.64	0.52			57.88	Siderite
PB12-D02	site 1 f	47.43	0.52	27.80	8.23		0.85		10.19		95.01	Al-celadonite
PB12-D02	site 1 g				92.15						92.15	Magnetite
PB12-D02	site 1 h	104.93									104.93	Quartz
PB12-D02	site 2 a	104.02									104.02	Quartz
PB12-D02	site 2 b				48.33	0.69	8.24	0.54			57.79	Siderite
PB12-D02	site 2 c	45.17		23.68	8.88		0.78		9.50		88.01	Al-celadonite
PB12-D02	site 2 d				91.27						91.27	Magnetite
PB12-D02	site 2 e	104.86									104.86	Quartz
PB12-D02	site 2 f				48.28	0.58	7.84	0.45			57.15	Siderite
PB12-D02	site 2 g	47.42	0.49	27.51	7.65		0.91		9.93		93.92	Al-celadonite
PB12-D02	site 2 h				91.46						91.46	Magnetite
PB12-D02	site 3 a	102.93									102.93	Quartz
PB12-D02	site 3 b				46.50	0.64	7.61	0.53			55.28	Actinolite
PB12-D02	site 3 c	47.34		25.29	9.65		0.76		9.96		93.01	Al-celadonite
PB12-D02	site 3 d				90.16						90.16	Magnetite
PB12-D02	site 3 e	102.91			0.94						103.85	Quartz
PB12-D02	site 3 f				52.94	0.30	3.22	0.33			56.79	Siderite
PB12-D02	site 3 g	45.87	0.53	26.03	8.98		0.71		10.07		92.18	Al-celadonite
PB12-D02	site 3 h				90.08						90.08	Magnetite
PB12-D02	site 4 a	103.95									103.95	Quartz
PB12-D02	site 4 b	64.57		17.50					15.20	0.34	97.60	Albite

Table 2: Sample PB12-D02; Continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	Total	Mineral
						wt%						
PB12-D02	site 4 c	103.80									103.80	Quartz
PB12-D02	site 4 d	66.02		17.86	0.27				15.33	0.33	99.80	Albite
PB12-D02	site 5 a	105.36									105.36	Quartz
PB12-D02	site 5 b				50.68	0.46	5.60	0.52			57.27	Siderite
PB12-D02	site 5 c	49.29		26.62	9.15		0.87		10.71		96.64	Al-celadonite
PB12-D02	site 5 d				90.88						90.88	Magnetite
PB12-D02	site 5 e	105.17									105.17	Quartz
PB12-D02	site 5 f				50.02	0.54	7.44	0.40			58.40	Siderite
PB12-D02	site 5 g				23.29	0.40	5.32	26.59			55.61	Siderite
PB12-D02	site 5 h				92.48						92.48	Magnetite
PB12-D02	site 6 a	104.36									104.36	Quartz
PB12-D02	site 6 b				48.20	0.71	7.83	0.55			57.29	Siderite
PB12-D02	site 6 c	46.22	0.80	27.00	8.79		0.68		10.40		93.89	Al-celadonite
PB12-D02	site 6 d				91.98						91.98	Magnetite
PB12-D02	site 6 e	105.34									105.34	Quartz
PB12-D02	site 6 f				52.59		5.48	0.67			58.73	Siderite
PB12-D02	site 6 g	46.38		25.49	10.32		0.78		10.29		93.27	Al-celadonite
PB12-D02	site 6 h				92.15						92.15	Magnetite
PB12-D02	site 7 a	105.22									105.22	Quartz
PB12-D02	site 7 b				50.42	0.43	6.25	0.48			57.58	Siderite
PB12-D02	site 7 c				21.66	0.36	7.59	26.23			55.84	Ankerite
PB12-D02	site 7 d				91.90						91.90	Magnetite
PB12-D02	site 7 e	103.15									103.15	Quartz
PB12-D02	site 7 f				50.49	0.49	6.20	0.43			57.61	Siderite
PB12-D02	site 7 g				21.81	0.42	7.38	26.68			56.30	Ankerite
PB12-D02	site 7 g				91.64						91.64	Magnetite

Table 3: Sample PB12-D02: Analysis 2

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Total	Mineral
							wt%								
PB12-D02	SITE 1 A	102.61												102.61	Quartz
PB12-D02	SITE 1 B	103.49												103.49	Quartz
PB12-D02	SITE 1 C				89.01								0.47	89.47	Fe-oxide
PB12-D02	SITE 1 D				89.91									89.91	Fe-oxide
PB12-D02	SITE 1 E				91.36									91.36	Fe-oxide
PB12-D02	SITE 1 F				47.04	0.62	8.20	0.59						56.45	Siderite
PB12-D02	SITE 1 G				49.60	0.57	6.70	0.46						57.33	Siderite
PB12-D02	SITE 1 H				49.61	0.60	6.70	0.36					0.42	57.70	Siderite
PB12-D02	SITE 1 I				53.22	0.35	4.12	0.44						58.13	Siderite
PB12-D02	SITE 1 J				53.27		3.86	0.45						57.58	Siderite
PB12-D02	SITE 1 K	45.06		24.68	8.82		0.90		10.24					89.70	Chlorite
PB12-D02	SITE 1 L	65.91		17.67					15.23	0.42				99.95	albite
PB12-D02	SITE 1 M	65.63		17.79					15.70	0.35				99.47	albite
PB12-D02	SITE 1 N	47.80		25.95	8.38		1.05		10.23					93.41	Al-Celadonite
PB12-D02	SITE 1 O	103.60			0.73									104.33	Quartz
PB12-D02	SITE 2 A	102.87												102.87	Quartz
PB12-D02	SITE 2 B	105.02												105.02	Quartz
PB12-D02	SITE 2 C	105.98												105.98	Quartz
PB12-D02	SITE 2 D	47.79		26.37	9.10		0.87		10.46					94.58	Al-Celadonite
PB12-D02	SITE 2 E	45.95		24.22	9.16		0.89		10.32					90.55	Al-Celadonite
PB12-D02	SITE 2 F	47.80		25.51	8.52		0.90		10.44					93.18	Al-Celadonite
PB12-D02	SITE 2 G	45.94		24.25	9.11		0.73		10.24					90.26	Al-Celadonite
PB12-D02	SITE 2 I													99.36	barite
PB12-D02	SITE 2 J				49.69	0.64	7.96	0.48						58.77	Siderite
PB12-D02	SITE 2 J2	5.06			66.11								0.18	75.93	Fe-oxide
PB12-D02	SITE 3 A	103.51												103.51	Quartz
PB12-D02	SITE 3 B	104.37			0.99									105.35	Quartz
PB12-D02	SITE 3 C	105.98												105.98	Quartz
PB12-D02	SITE 3 D				49.28	0.46	7.35	0.40						57.50	Siderite
PB12-D02	SITE 3 E				48.13	0.53	8.37	0.49						57.52	Siderite
PB12-D02	SITE 3 F				54.49		2.93	0.72					0.35	58.49	Siderite
PB12-D02	SITE 3 G				51.49		3.27	0.47						55.23	Siderite
PB12-D02	SITE 3 H				52.98	0.31	3.87	0.63						57.78	Siderite
PB12-D02	SITE 3 I				48.34	0.70	8.62	0.47						58.13	Siderite
PB12-D02	SITE 3 J	67.11		18.45					15.29	0.45				101.31	albite
PB12-D02	SITE 3 K				53.08	0.32	3.17	0.54						57.11	Siderite
PB12-D02	SITE 3 L				53.72		3.62						0.18	57.52	Fe-oxide
PB12-D02	SITE 3 M				49.07	0.66	8.25	0.46						58.44	Siderite

Table 4: Sample PB12-D09

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Total	Mineral
							wt%						
PB12-D09	SITE 1 A	103.96										103.96	Quartz
PB12-D09	SITE 1 B	103.58										103.58	Quartz
PB12-D09	SITE 1 C				51.06	0.35	6.18	0.31				57.90	Siderite
PB12-D09	SITE 1 D				50.59	0.27	6.87	0.63				58.36	Siderite
PB12-D09	SITE 1 E				20.72	0.37	6.19	26.17				53.44	Ankerite
PB12-D09	SITE 2 A	104.38										104.38	Quartz
PB12-D09	SITE 2 B	104.26										104.26	Quartz
PB12-D09	SITE 2 C	0.39			51.30	0.28	4.64	0.33				56.95	Siderite
PB12-D09	SITE 2 D				48.86	0.52	5.97	0.55				55.90	Siderite
PB12-D09	SITE 2 E				22.09		6.25	25.80				54.14	Ankerite
PB12-D09	SITE 2 F				21.62		6.34	25.75				53.71	Ankerite
PB12-D09	SITE 2 G	46.95	0.37	31.44	3.77		0.77		9.64	0.69		93.64	Al-celadonite
PB12-D09	SITE 2 H	48.73	0.34	32.34	3.76		0.81		9.50	0.68		96.16	Al-celadonite
PB12-D09	SITE 3 A	104.90										104.90	Quartz
PB12-D09	SITE 3 B	105.42										105.42	Quartz
PB12-D09	SITE 3 C				49.42	0.36	7.28	0.67				57.73	Siderite
PB12-D09	SITE 3 D				50.13	0.38	6.96	0.48				57.95	Siderite
PB12-D09	SITE 3 E				21.80	0.30	7.01	26.44				55.55	Ankerite
PB12-D09	SITE 3 F				22.13	0.28	7.15	26.52				56.08	Ankerite
PB12-D09	SITE 3 G	47.67	0.62	32.65	3.79		0.67		9.97	0.55		95.94	Al-celadonite
PB12-D09	SITE 3 H	47.43		32.35	4.33		0.73	0.30	9.52	0.75		95.42	Al-celadonite
PB12-D09	SITE 4 A	105.75										105.75	Quartz
PB12-D09	SITE 4 B	105.77										105.77	Quartz
PB12-D09	SITE 4 C							53.51			39.56	93.07	Fluoroapatite
PB12-D09	SITE 4 D							54.10			39.64	93.74	Fluoroapatite
PB12-D09	SITE 4 E	45.40	0.65	31.75	3.62		0.52		10.16	0.39		92.49	Al-celadonite
PB12-D09	SITE 4 F	41.80	0.53	29.25	3.61		0.45		9.69	0.38		85.70	Al-celadonite
PB12-D09	SITE 4 G				21.17	0.28	6.77	25.56				53.79	Ankerite
PB12-D09	SITE 4 H				21.73	0.29	6.85	25.91				54.78	Ankerite

Table 5: Sample 2013-D5

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Total	Mineral
							wt%								
2013-D5	SITE 1 A	104.11												104.11	Quartz
2013-D5	SITE 1 B	105.58												105.58	Quartz
2013-D5	SITE 1 C	103.44												103.44	Quartz
2013-D5	SITE 1 D				53.86		3.10	0.47						57.43	Siderite
2013-D5	SITE 1 D2	44.05	0.33	31.12	4.46				8.99	0.75		2.92		92.61	Al-Celadonite
2013-D5	SITE 1 E				53.73		3.17	0.54						57.43	Siderite
2013-D5	SITE 1 F				55.04		3.07	0.47						58.59	Siderite
2013-D5	SITE 1 G				54.42		3.21	0.30					0.22	58.15	Siderite
2013-D5	SITE 1 H				53.95		3.13	0.48						57.56	Siderite
2013-D5	SITE 1 I				54.06		3.17	0.67						57.90	Siderite
2013-D5	SITE 1 J				54.88		3.17	0.37						58.42	Siderite
2013-D5	SITE 1 K				54.27		3.09	0.44					0.10	57.90	Siderite
2013-D5	SITE 1 L				54.21		3.09	0.49						57.79	Siderite
2013-D5	SITE 1 M	21.99		19.21	41.61		2.63					0.78	0.08	86.30	Chlorite
2013-D5	SITE 1 N	45.76	0.45	32.46	2.41				9.25	0.80		2.20		93.33	Al-Celadonite
2013-D5	SITE 1 O	45.69	0.42	32.53	2.23		0.38		9.43	0.65		2.62		93.94	Al-Celadonite
2013-D5	SITE 1 P	48.19		35.01	2.85				9.30	1.21		0.87		97.44	Al-Celadonite
2013-D5	SITE 1 Q	45.73		31.12	5.92		0.50		8.95	0.65		0.97		93.84	Al-Celadonite
2013-D5	SITE 1 R	46.76		33.35	2.37		0.49		9.48	0.73		1.06		94.25	Al-Celadonite
2013-D5	SITE 2 A	103.14												103.14	Quartz
2013-D5	SITE 2 B	103.09												103.09	Quartz
2013-D5	SITE 2 C	102.11												102.11	Quartz
2013-D5	SITE 2 D				53.02		2.82	0.55						56.39	Siderite
2013-D5	SITE 2 E				52.87		3.11	0.53						56.51	Siderite
2013-D5	SITE 2 F				54.84		2.12						0.26	57.22	Siderite
2013-D5	SITE 2 G				54.87		3.21	0.41						58.49	Siderite
2013-D5	SITE 2 H				53.81		3.13	0.43						57.37	Siderite
2013-D5	SITE 2 I				54.10		2.92	0.44						57.46	Siderite
2013-D5	SITE 2 J				53.22		3.16	0.66						57.03	Siderite
2013-D5	SITE 2 K	45.57		31.14	2.57		0.47		9.18	0.58		1.19		90.70	Al-Celadonite
2013-D5	SITE 2 L	47.81	0.36	34.41	2.11				9.21	1.47		0.97		96.34	Al-Celadonite
2013-D5	SITE 2 M	45.95	0.39	30.01	2.99		0.54		9.69	0.55		1.23		91.35	Al-Celadonite

Table 6: Sample 2013-D8

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Total	Mineral
							wt%								
2013-D8	SITE 1 A	105.83												105.83	Quartz
2013-D8	SITE 1 B				54.06		5.27	0.48					0.41	60.23	Siderite
2013-D8	SITE 1 C	48.58		35.06	2.93		0.50		9.52	0.96				97.54	Al-celadonite
2013-D8	SITE 1 D				54.08		4.44	0.37					0.44	59.33	Siderite
2013-D8	SITE 1 E				54.20		3.66	0.42					0.35	58.63	Siderite
2013-D8	SITE 1 F	47.25	0.35	32.35	4.29		0.65	0.37	9.26	0.71				95.23	Al-celadonite
2013-D8	SITE 1 G				54.32		4.27	0.31					0.31	59.22	Siderite
2013-D8	SITE 1 H	49.26	0.37	35.53	2.47		0.47		10.02	0.69				98.80	Al-celadonite
2013-D8	SITE 1 I				0.59			55.29			39.36			95.24	Ca-phosphate
2013-D8	SITE 1 J	105.05			0.57									105.62	Quartz
2013-D8	SITE 1 K				53.85		3.81	0.59					0.31	58.55	Siderite
2013-D8	SITE 1 L		52.49		47.65									100.14	Rutile
2013-D8	SITE 1 M	47.67	0.37	34.65	2.86				9.38	0.89				95.82	Al-celadonite
2013-D8	SITE 1 N				53.12		4.97	0.48					0.29	58.87	Siderite
2013-D8	SITE 1 O				52.20		3.80	0.48					0.28	56.75	Siderite
2013-D8	SITE 1 P	77.71		23.12	2.66				5.54	0.77				109.80	K-feldspar
2013-D8	SITE 1 Q	49.90		36.12	2.75		0.40		9.68	0.89				99.74	Al-celadonite
2013-D8	SITE 1 R				53.97		3.88	0.47					0.50	58.82	Siderite
2013-D8	SITE 1 S	106.35			0.40									106.76	Quartz
2013-D8	SITE 1 T	45.48		32.61	3.00		0.38		9.51	0.71				91.69	Al-celadonite
2013-D8	SITE 1 U				54.01		4.18	0.59					0.33	59.11	Siderite
2013-D8	SITE 1 V	0.89		0.47	51.26		4.11	1.44						58.18	Siderite
2013-D8	SITE 1 W	44.62		32.45	2.60		0.35		9.53	0.57				90.11	Al-celadonite
2013-D8	SITE 2 A	105.60												105.60	Quartz
2013-D8	SITE 2 B				53.20		5.44	0.45					0.35	59.44	Siderite
2013-D8	SITE 2 C		52.41		47.63									100.04	Rutile
2013-D8	SITE 2 D				53.88		4.20	0.62					0.24	58.93	Siderite
2013-D8	SITE 2 E	55.74		39.30	3.81		0.58		10.15	1.19				111.38	K-feldspar
2013-D8	SITE 2 F	106.16			0.93									107.09	Quartz
2013-D8	SITE 2 G				54.60		4.07	0.36					0.23	59.26	Siderite
2013-D8	SITE 2 H				54.29		3.72	0.47					0.18	58.65	Siderite

Table 6: Sample 2013-D8; continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Total	Mineral
							wt%								
2013-D8	SITE 2 I	47.17	0.35	32.80	3.44		0.53		9.78	0.66				94.74	Al-celadonite
2013-D8	SITE 2 J				53.66		3.68	0.64					0.14	58.12	Siderite
2013-D8	SITE 2 K	45.68	0.36	33.08	3.29		0.51		9.62	0.65				93.19	Al-celadonite
2013-D8	SITE 2 L	106.13			0.69									106.82	Quartz
2013-D8	SITE 2 M				52.75		1.23	0.52						54.49	Siderite
2013-D8	SITE 2 N	45.33		32.94	2.92		0.44		9.70	0.59				91.93	Al-celadonite
2013-D8	SITE 2 O				52.85		5.75	0.67					0.21	59.48	Siderite
2013-D8	SITE 2 P	54.09		38.68	3.38		0.56		9.80	1.18				107.69	Quartz
2013-D8	SITE 2 Q				53.56		4.34	0.46					0.26	58.62	Siderite
2013-D8	SITE 2 R	106.84			0.87									107.71	Quartz
2013-D8	SITE 2 S	48.94		34.34	3.25		0.56		9.44	0.65				97.19	Al-celadonite
2013-D8	SITE 2 T				53.98		4.38	0.46					0.22	59.04	Siderite
2013-D8	SITE 2 U	47.92		35.49	3.35		0.51		9.28	0.99				97.55	Al-celadonite
2013-D8	SITE 2 V				53.19		4.12	0.53					0.27	58.11	Siderite
2013-D8	SITE 2 W	49.20		34.82	2.99		0.56		9.57	0.71				97.86	Al-celadonite
2013-D8	SITE 3 A	105.28												105.28	Quartz
2013-D8	SITE 3 B	45.71		32.36	2.71		0.43		9.83	0.51				91.55	Al-celadonite
2013-D8	SITE 3 C				54.19		3.71	0.41					0.32	58.63	Siderite
2013-D8	SITE 3 D				26.64		4.79	26.24						57.66	Ankerite
2013-D8	SITE 3 E	46.85	0.33	34.09	3.40		0.37		9.87	0.84				95.74	Al-celadonite
2013-D8	SITE 3 F				53.63		3.15	0.45					0.25	57.48	Siderite
2013-D8	SITE 3 G	47.86		34.84	2.86				9.35	1.05				95.96	Al-celadonite
2013-D8	SITE 3 H				53.35		3.95	0.54						57.84	Siderite
2013-D8	SITE 3 I				53.22		4.03	0.56					0.34	58.15	Siderite
2013-D8	SITE 3 J				24.90		5.13	25.77						55.79	Ankerite
2013-D8	SITE 3 K	49.54	0.29	34.10	3.55		0.56		9.64	0.82				98.50	Al-celadonite
2013-D8	SITE 3 L	46.37		34.15	2.40		0.35		9.91	0.64				93.82	Al-celadonite
2013-D8	SITE 3 M				54.03		4.27	0.36					0.31	58.97	Siderite
2013-D8	SITE 3 N				53.70		3.97	0.52					0.16	58.34	Siderite
2013-D8	SITE 3 O	49.13	0.30	35.99	3.22		0.41		9.71	0.96				99.72	Al-celadonite
2013-D8	SITE 3 P	48.88		34.57	2.80		0.50		9.94	0.58				97.28	Al-celadonite
2013-D8	SITE 3 Q				54.09		4.21	0.43					0.23	58.96	Siderite
2013-D8	SITE 3 R				52.90		3.95	0.40					0.21	57.47	Siderite

Table 9: Sample 2013-D12

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	Total	Mineral
						wt%						
2013-D12	site 1 a	104.02									104.02	Quartz
2013-D12	site 1 b				50.89	0.33	5.85	0.42			57.50	Siderite
2013-D12	site 1 c				23.37	0.28	6.18	25.82			55.66	Ankerite
2013-D12	site 1 d	48.18		30.60	5.33		0.83		9.69	0.37	95.01	Al-celadonite
2013-D12	site 1 e	104.55									104.55	Quartz
2013-D12	site 1 f				50.72	0.35	6.10	0.62			57.79	Siderite
2013-D12	site 1 g				23.20		6.23	25.76			55.19	Ankerite
2013-D12	site 1 h	48.57	0.75	32.14	4.71		0.60		9.78	0.39	96.94	Al-celadonite
2013-D12	site 2 a	103.86									103.86	Quartz
2013-D12	site 2 b				51.64		4.92	0.34			56.89	Siderite
2013-D12	site 6 c				23.47		6.17	25.86			55.50	Ankerite
2013-D12	site 2 d	47.90	0.67	29.43	4.48		0.54		9.60	0.34	92.97	Al-celadonite
2013-D12	site 6 e	104.42									104.42	Quartz
2013-D12	site 2 f				50.59	0.30	5.93	0.47			57.29	Siderite
2013-D12	site 2 g				23.24		6.08	25.74			55.06	Ankerite
2013-D12	site 2 g	47.75	0.49	31.47	5.05		0.65		9.96	0.50	95.87	Al-celadonite
2013-D12	site 3 a	104.97									104.97	Quartz
2013-D12	site 3 b				51.51	0.30	5.81	0.40			58.02	Siderite
2013-D12	site 3 c	47.29	0.77	30.88	5.07		0.63		10.28	0.34	95.25	Al-celadonite
2013-D12	site 3 d	105.74									105.74	Quartz
2013-D12	site 3 e				52.06	0.31	5.82	0.59			58.78	Siderite
2013-D12	site 3 f	47.27	0.41	29.58	4.91		0.97	0.32	10.19		93.65	Al-celadonite
2013-D12	site 3 g	47.93	0.38	31.11	4.78		0.70		10.22	0.36	95.49	Al-celadonite
2013-D12	site 4 a	104.88									104.88	Quartz
2013-D12	site 4 c	45.96		29.24	4.44		0.77		9.96	0.44	90.82	Al-celadonite
2013-D12	site 4 d	104.48									104.48	Quartz
2013-D12	site 4 e				51.06		5.86	0.47			57.40	Ankerite

Table 9: Sample 2013-D12; continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	Total	Mineral
						wt%						
2013-D12	site 4 f	46.63	0.59	31.96	4.49		0.48		10.15	0.32	94.62	Al-celadonite
2013-D12	site 5 a	103.41									103.41	Quartz
2013-D12	site 5 b				49.38	0.31	5.49	1.05			56.23	Siderite
2013-D12	site 5 c				22.61		6.15	26.22			54.98	Ankerite
2013-D12	site 5 d	44.55	0.44	27.92	5.06		0.85		9.68	0.31	88.80	Al-celadonite
2013-D12	site 5 e	105.56									105.56	Quartz
2013-D12	site 5 f				50.82	0.33	5.81	0.54			57.50	Siderite
2013-D12	site 5 g				23.61		5.89	25.88			55.38	Ankerite
2013-D12	site 5 h	47.41	0.70	30.90	5.24		0.74		10.24	0.31	95.54	Al-celadonite
2013-D12	site 6 a	103.73									103.73	Quartz
2013-D12	site 6 b				50.48	0.31	5.89	0.45			57.13	Siderite
2013-D12	site 6 c	44.43	0.59	30.70	4.44		0.49		10.04		90.68	Al-celadonite
2013-D12	site 6 d	104.55									104.55	Quartz
2013-D12	site 6 e				50.09	0.26	6.01	0.44			56.79	Siderite
2013-D12	site 6 f	46.39	0.68	31.16	4.47		0.57		9.82	0.29	93.39	Al-celadonite
2013-D12	site 7 a	104.02									104.02	Quartz
2013-D12	site 7 b				49.54		7.39	0.42			57.35	Siderite
2013-D12	site 7 c	45.95	0.37	29.32	4.84		0.73		9.57		90.78	Al-celadonite
2013-D12	site 7 d	104.21									104.21	Quartz
2013-D12	site 7 e				50.70	0.35	5.91	0.43			57.40	Siderite
2013-D12	site 7 f	47.12	0.73	31.17	4.81		0.79		10.05		94.67	Al-celadonite

Table 10: Sample 2013-D14

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	CoO	Total	Mineral
						wt%							
2013-D14	SITE 1 A	102.09										102.09	Quartz
2013-D14	SITE 1 B	107.84			0.41							108.25	Quartz
2013-D14	SITE 1 C	103.13										103.13	Quartz
2013-D14	SITE 1 D	23.09		20.76	35.79		6.12					85.76	Chlorite
2013-D14	SITE 1 E	22.53		20.35	36.59		5.87					85.34	Chlorite
2013-D14	SITE 1 F				20.75		7.70	26.18				54.63	ankerite
2013-D14	SITE 1 G				20.77	0.31	7.87	26.25				55.19	ankerite
2013-D14	SITE 1 H	22.53		20.34	36.01		5.99					84.87	Chlorite
2013-D14	SITE 1 I	23.57		19.71	36.17		6.36					85.81	Chlorite
2013-D14	SITE 1 J	22.99		20.77	37.33		6.20					87.29	Chlorite
2013-D14	SITE 1 K	23.83		20.95	36.71		6.41					87.90	Chlorite
2013-D14	SITE 1 L	23.33		21.13	37.09		6.06					87.60	Chlorite
2013-D14	SITE 1 M	46.56	0.45	32.59	3.35		0.55		9.68	0.66		93.83	Al-Celadonite
2013-D14	SITE 1 N	47.03	0.28	30.72	4.18		0.90		9.94	0.49		93.54	Al-Celadonite
2013-D14	SITE 1 O	0.49			58.69			6.94				78.00	Fe-oxide
2013-D14	SITE 1 P				21.13		7.85	26.54				55.53	ankerite
2013-D14	SITE 2 A	103.53										103.53	Quartz
2013-D14	SITE 2 B	103.05										103.05	Quartz
2013-D14	SITE 2 C				10.88		14.05	27.21				52.15	ankerite
2013-D14	SITE 2 D				9.91		14.46	27.40				51.78	ankerite
2013-D14	SITE 2 E	0.75			11.36		13.43	26.93				52.47	ankerite
2013-D14	SITE 2 F				20.40		7.65	26.17				54.23	ankerite
2013-D14	SITE 2 G				20.45		7.82	26.01				54.29	ankerite
2013-D14	SITE 2 H				20.99		7.56	25.95				54.50	ankerite
2013-D14	SITE 2 I				48.94	0.43	7.70	0.56				57.62	Siderite
2013-D14	SITE 2 J				48.28	0.35	8.01	0.48				57.13	Siderite
2013-D14	SITE 2 K	24.16		21.03	37.09		6.47					88.76	Chlorite
2013-D14	SITE 2 L	24.48		21.39	38.07		6.45					90.39	Chlorite
2013-D14	SITE 2 M	24.71		20.41	37.15		6.80					89.07	Chlorite
2013-D14	SITE 2 N	106.27										106.27	Quartz
2013-D14	SITE 2 O	106.77										106.77	Quartz
2013-D14	SITE 2 P	23.81		20.80	37.03		6.80					88.45	Chlorite
2013-D14	SITE 2 Q	23.84		20.80	38.15		6.22				0.11	89.13	Chlorite
2013-D14	SITE 2 R	23.70		21.32	36.59		6.31				0.39	88.32	Chlorite
2013-D14	SITE 2 S	22.82		20.74	37.97		6.01				0.38	87.92	Chlorite

Table 11: Sample 2013-D22

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	WO_3	Total	Mineral
								wt%								
2013-D22	site 1 a	99.39													99.39	Quartz
2013-D22	site 1 b	99.43													99.43	Quartz
2013-D22	site 1 c				19.12		7.44	24.58							51.14	Ankerite
2013-D22	site 1 d	22.56		19.83	34.83		6.37								83.59	Chlorite
2013-D22	site 1 e				19.11		7.78	25.25							52.14	Ankerite
2013-D22	site 1 f				9.15		14.80	26.49							50.43	Ankerite
2013-D22	site 1 g	22.37		19.32	34.81		6.31				P				82.81	Chlorite
2013-D22	site 1 h				47.33	0.39	6.95	0.52							55.18	Siderite
2013-D22	site 1 i	99.27													99.27	Quartz
2013-D22	site 1	22.26		18.67	34.80		6.13								81.86	Chlorite
2013-D22	site 1 k				0.53			52.20						1.84	94.08	apatite
2013-D22	site 1 l	99.87													99.87	Quartz
2013-D22	site 1 m	22.69		19.62	35.23		6.47								84.01	Chlorite
2013-D22	site 1 n	21.63		19.12	35.07		6.11								81.93	Chlorite
2013-D22	site 1 o	99.96													99.96	Quartz
2013-D22	site 1 p	22.23		18.33	34.14		6.06	0.43							81.18	Chlorite
2013-D22	site 1 q	0.83			71.25			0.42							74.77	Siderite
2013-D22	site 1 r	99.56									39.51				99.56	Quartz
2013-D22	site 1 s	21.54		19.20	34.71		5.70								81.15	Chlorite
2013-D22	site 1 t	22.55		19.66	35.09		6.51								83.81	Chlorite
2013-D22	site 2 a	100.81													100.81	Quartz
2013-D22	site 2 b	100.77													100.77	Quartz
2013-D22	site 2 c				47.55	0.34	7.13	0.47					0.27		55.77	Siderite
2013-D22	site 2 d				20.10		7.57	24.96							52.62	Ankerite
2013-D22	site 2 e	22.84		19.08	35.49		6.50								83.90	Chlorite
2013-D22	site 2 f				48.10	0.48	6.62	0.32					0.15		55.67	Siderite
2013-D22	site 2 f2	23.54		20.04	34.72		6.60								84.91	Chlorite

Table 12: Sample 2013-D22

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	WO_3	Total	Mineral
								wt%								
2013-D22	site 2 g				20.90		7.09	25.33							53.32	Ankerite
2013-D22	site 2 h				7.64	0.27	15.79	27.00							50.71	Ankerite
2013-D22	site 2 i	22.85		19.58	35.25		6.27						0.31		84.25	Chlorite
2013-D22	site 2 j				46.90	0.41	7.77	0.48							55.55	Siderite
2013-D22	site 2 k				20.57		7.46	25.08							53.12	Ankerite
2013-D22	site 2 l	100.63													100.63	Quartz
2013-D22	site 2 m	22.45		19.99	36.01		6.27						0.38		85.10	Chlorite
2013-D22	site 2 o				7.78		15.14	27.10							50.03	Ankerite
2013-D22	sire 2 o	100.55													100.55	Quartz
2013-D22	site 2 p	23.70		20.85	35.48		6.46						0.17		86.67	Chlorite
2013-D22	site 2 q				47.36	0.37	7.56	0.23							55.53	Siderite
2013-D22	site 2 r	22.31		19.69	35.50		6.25						0.23		83.99	Chlorite
2013-D22	site 3 a	100.23													100.23	Quartz
2013-D22	site 3 b	23.52		19.42	34.81		6.63								84.38	Chlorite
2013-D22	site 3 c				46.96	0.34	7.58	0.41					0.20		55.49	Siderite
2013-D22	site 3 d	22.18		19.64	35.32		5.86						0.31		83.32	Chlorite
2013-D22	site 3 e	99.58													99.58	Quartz
2013-D22	site 3 f				49.53	0.33	5.40	0.24					0.42		55.92	Siderite
2013-D22	site 3 g				10.31	0.30	14.05	26.42							51.07	Ankerite
2013-D22	site 3 h	21.83		19.67	35.41		5.94								82.86	Chlorite
2013-D22	site 3 i	99.65													99.65	Quartz
2013-D22	site 3 j				47.44	0.36	7.24	0.26							55.30	Siderite
2013-D22	site 3 k	22.77		20.25	35.55		6.20						0.20		84.98	Chlorite
2013-D22	site 3 l				20.22	0.27	7.65	25.04							53.18	Ankerite
2013-D22	site 3 m	100.07													100.07	Quartz
2013-D22	site 3 n	21.81		18.71	35.54		5.88								81.94	Chlorite
2013-D22	site 3 o	23.98		21.13	35.18		6.59								86.89	Chlorite
2013-D22	site 3 p	24.95		19.04	32.62		6.20								82.81	Chlorite
2013-D22	site 3 q	100.43													100.43	Quartz
2013-D22	site 3 r	22.50		20.70	35.74		6.38						0.32		85.63	Chlorite
2013-D22	site 3 s	23.24		20.43	35.42		6.55								85.65	Chlorite
2013-D22	site 4 a	99.86													99.86	Quartz

Table 13: Sample 2013-D22

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	WO_3	Total	Mineral
								wt%								
2013-D22	site 4 b				47.92	0.38	6.55						0.25		55.09	Siderite
2013-D22	site 4 c	0.94			50.61		3.77	0.54					0.37		56.23	Siderite
2013-D22	site 4 d				20.13		7.84	25.45							53.42	Ankerite
2013-D22	site 3 e				9.88		14.53	26.68							51.09	Ankerite
2013-D22	site 3 f	101.18													101.18	Quartz
2013-D22	site 4 g				47.64	0.34	7.06	0.37					0.34		55.76	Siderite
2013-D22	site 4 h				21.02	0.30	6.99	25.28							53.59	Ankerite
2013-D22	site 4 i				46.59	0.39	7.29	0.50					0.43		55.21	Siderite
2013-D22	site 4 j	22.89		20.13	35.15		6.09						0.13		84.40	Chlorite
2013-D22	site 4 k	23.57		19.95	34.84		6.42								84.77	Chlorite
2013-D22	site 4 l				48.48	0.37	6.70	0.30					0.45		56.31	Siderite
2013-D22	site 4 m	100.95													100.95	Quartz
2013-D22	site 4 n				47.81	0.43	7.63	0.38					0.22		56.48	Siderite
2013-D22	site 4 o	23.16		20.49	35.04		6.27								84.96	Chlorite
2013-D22	site 4 p	101.39													101.39	Quartz
2013-D22	site 4 q				46.56	0.36	7.97	0.47					0.21		55.57	Siderite
2013-D22	site 4 r	22.96		20.12	35.17		6.04						0.06		84.35	Chlorite
2013-D22	site 4 s	21.82		18.75	35.79		5.87								82.23	Chlorite
2013-D22	site 4 t				46.35	0.32	7.63	0.36							54.65	Siderite

Table 14: Sample 2013-D26

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	WO_3	Total	Mineral
								wt%								
2013-D26	site 1 a	100.74													100.74	Quartz
2013-D26	site 1 b							52.82			39.02				91.84	Apatite
2013-D26	site 1 c	46.60		32.77	1.33		0.91		9.38	0.59					91.59	Al-celadonite
2013-D26	site 1 d	100.70													100.70	Quartz
2013-D26	site 1 e	46.41		32.39	1.21		1.03		9.35	0.61					91.00	Al-celadonite
2013-D26	site 1 f	46.48		34.03	0.67		0.58		9.32	0.67					91.74	Al-celadonite
2013-D26	site 1 g	46.14	0.31	32.20	1.44		0.91		9.47	0.70					91.17	Al-celadonite
2013-D26	site 1 h		95.64		0.35										95.99	Rutile
2013-D26	site 1 i	101.11													101.11	Quartz
2013-D26	site 1 j	23.12		20.09	31.70		8.29						0.14		83.34	Chlorite
2013-D26	site 1 k	23.78		20.19	32.30		8.63						0.10		85.00	Chlorite
2013-D26	site 1 m	46.17		33.64	1.78		0.67		9.37	0.66					92.28	Al-celadonite
2013-D26	site 1 n	24.33		21.47	32.06		8.92								86.77	Chlorite
2013-D26	site 1 o	23.79		20.72	31.91		9.02								85.44	Chlorite
2013-D26	site 1 p	43.09	0.46	30.22	2.39		0.68		8.93	0.66					86.43	Al-celadonite
2013-D26	site 2 a	100.16													100.16	Quartz
2013-D26	site 2 b	53.37		27.26	1.70		0.61		7.30	0.70					90.94	Al-celadonite
2013-D26	site 2 d		94.21												94.21	rutile
2013-D26	site 2 e	98.94													98.94	Quartz
2013-D26	site 2 f				15.51	0.52	10.32	25.60							51.95	Ankerite
2013-D26	site 2 f2	0.79			11.66	0.37	4.58	32.66							51.02	Ankerite

Table 14: Sample 2013-D26; continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	WO_3	Total	Mineral
								wt%								
2013-D26	site 2 g				16.16	0.57	9.68	25.39							51.80	Ankerite
2013-D26	site 2 h				15.79	0.46	10.00	25.54							51.78	Ankerite
2013-D26	site 2 i	100.05													100.05	Quartz
2013-D26	site 2 j	100.25													100.25	Quartz
2013-D26	site 2 k	46.60		33.01	1.38		0.66		9.16	0.79					91.60	Al-celadonite
2013-D26	site 2 l	25.05		21.41	32.06		8.73								87.25	Chlorite
2013-D26	site 2 m	99.56													99.56	Quartz
2013-D26	site 2 n	42.37	0.25	29.96	2.80		1.14		8.47	0.52					85.52	Al-celadonite
2013-D26	site 2 o	24.51		21.17	31.18		9.36								86.21	Chlorite
2013-D26	site 2 p	25.19		21.60	31.06		9.83						0.23		87.91	Chlorite
2013-D26	site 2 q	45.47	0.37	32.25	1.59		0.62		9.20	0.64					90.14	Al-celadonite
2013-D26	site 3 a	100.61													100.61	Quartz
2013-D26	site 3 b				15.49	0.45	9.53	25.12							50.59	Ankerite
2013-D26	site 3 c				15.82	0.48	10.12	25.31							51.73	Ankerite
2013-D26	site 3 d	42.67	0.27	29.68	1.36		0.97		8.92	0.56					84.43	Al-celadonite
2013-D26	site 3 e	98.84													98.84	Quartz
2013-D26	site 3 f	46.45		33.26	1.07		0.77		9.41	0.70					91.66	Al-celadonite
2013-D26	site 3 g				14.87	0.44	10.57	25.44			39.44				51.32	Ankerite
2013-D26	site 3 h	99.27													99.27	Quartz
2013-D26	site 3 i	43.09	0.27	30.03	1.42		0.74		9.03	0.61					85.19	Al-celadonite
2013-D26	site 3 j							51.82						2.10	93.35	Apatite
2013-D26	site 3 k	45.13		32.20	1.30		0.72		9.22	0.65					89.21	Al-celadonite
2013-D26	site 3 l	99.46													99.46	Quartz
2013-D26	site 3 m	22.89		19.84	30.97		8.14								81.85	Chlorite
2013-D26	site 3 o	100.01			0.46										100.47	Quartz
2013-D26	site 3 p	45.92	0.26	33.50	1.39		0.61		9.48	0.71					91.86	Al-celadonite
2013-D26	site 3 q	24.74		21.33	30.63		8.99								85.70	Chlorite
2013-D26	site 3 r	35.91	0.56	28.45	8.08		6.15			2.70					81.85	Augite
2013-D26	site 3 s	23.74		20.50	31.36		8.78				P				84.38	Chlorite
2013-D26	site 3 t	35.72	0.28	29.32	8.68		5.46			2.64					82.09	Augite

Table 15: Sample 2013-D84

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O wt%	Na_2O	P_2O_5	V_2O_3	CoO	Ag_2O	La_2O_3	CeO_2	N_d2O_3	WO_3	Total	Mineral
2013-D84	SITE 1 A	105.66																	105.66	Quartz
2013-D84	SITE 1 B	32.97									40.55								97.71	Quartz
2013-D84	SITE 1 C				47.64	0.73	8.68	0.48					0.29						57.83	Siderite
2013-D84	SITE 1 D				19.56	0.53	8.86	26.39											55.33	Ankerite
2013-D84	SITE 1 D2	47.60	0.30	31.75	3.32		0.84		9.62	0.79									94.23	Al-celadonite
2013-D84	SITE 1 E				18.39	0.57	9.75	26.50											55.21	Ankerite
2013-D84	SITE 1 F							54.86										2.52	97.93	Ca-phosphate
2013-D84	SITE 1 G	48.24	0.34	32.64	3.29		0.85		9.68	0.64									95.67	Al-celadonite
2013-D84	SITE 1 H	46.58	0.46	31.95	3.10		0.70		9.58	0.63									93.00	Al-celadonite
2013-D84	SITE 1 I				19.16	0.52	8.70	26.30											54.68	Ankerite
2013-D84	SITE 1 J	49.09	0.29	32.14	3.32		0.81		9.59	0.67									95.91	Al-celadonite
2013-D84	SITE 1 K	104.96																	104.96	Quartz
2013-D84	SITE 1 L				19.48	0.40	8.27	25.94			27.36								54.08	Ankerite
2013-D84	SITE 1 M	1.45			52.86	0.45	3.17	0.49					0.25						58.67	Siderite
2013-D84	SITE 1 N	43.21	0.36	30.70	2.93		0.55		8.89	0.78	40.43								87.43	Al-celadonite
2013-D84	SITE 1 O	23.48		20.73	34.73		7.44						0.16						86.54	Chlorite
2013-D84	SITE 3 P	47.07	0.35	32.62	3.70		0.73		9.99	0.48									94.94	Al-celadonite
2013-D84	SITE 1 Q										26.94			1.10	15.78	30.71	11.59		86.53	Monazite
2013-D84	SITE 1 R		100.12		0.51														100.64	Rutile
2013-D84	SITE 1 T				0.32			54.91	0.23									2.36	98.25	Ca-phosphate
2013-D84	SITE 1 U	23.59		20.88	33.61		6.81		0.54				0.20						85.62	Chlorite
2013-D84	SITE 1 V	47.20		32.58	3.35		0.72		9.71	0.63									94.19	Al-celadonite
2013-D84	SITE 1 W	2.04		1.31				0.35	0.39						14.95	30.04	11.46		87.47	Monazite

Table 15: Sample 2013-D84; continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Ag_2O	La_2O_3	CeO_2	$Nd2O_3$	WO_3	Total	Mineral
									wt%											
2013-D84	SITE 1 X	24.68		21.85	35.71		7.35						0.03						89.62	Chlorite
2013-D84	SITE 1 Y		97.00		1.45				0.23										99.88	rutile
2013-D84	SITE 1 Z	47.75		31.81	3.12		0.88		9.76	0.52									93.84	Al-celadonite
2013-D84	SITE 2 B	24.55		21.13	34.46		7.58												87.72	Chlorite
2013-D84	SITE 2 C	48.67	0.29	33.02	3.40		0.87		9.89	0.67									96.83	Al-celadonite
2013-D84	SITE 2 D	50.08		33.04	3.66		0.97		9.69	0.80									98.24	Al-celadonite
2013-D84	SITE 2 D2		0.44		18.87	0.43	9.57	26.10											55.42	Ankerite
2013-D84	SITE 2 E	99.91		5.15						3.24									108.30	Albite
2013-D84	SITE 2 E2	104.84																	104.84	Quartz
2013-D84	SITE 2 F				19.15	0.44	8.74	25.83											54.17	Ankerite
2013-D84	SITE 2 G				19.15	0.48	9.11	26.20											54.93	Ankerite
2013-D84	SITE 2 H	47.36	0.37	32.03	3.34		0.77		9.71	0.72									94.29	Al-celadonite
2013-D84	SITE 2 I	37.54		18.58	31.76		6.52				40.49								94.39	Chlorite
2013-D84	SITE 2 J	104.58			0.27														104.85	Quartz
2013-D84	SITE 2 K	36.84		30.27	14.27		2.99			2.23									86.60	Al-celadonite
2013-D84	SITE 2 L				47.98	0.73	8.86	0.39			39.59								57.97	Siderite
2013-D84	SITE 2 M	43.08	0.49	29.20	14.60		3.49			2.38									93.25	Al-celadonite
2013-D84	SITE 2 N				47.63	0.69	8.81	0.38					0.25						57.77	Siderite
2013-D84	SITE 2 O				46.78	0.52	8.79	0.39											56.48	Siderite
2013-D84	SITE 2 P	46.22		31.99	3.19		0.82		9.91	0.52									92.65	Al-celadonite
2013-D84	SITE 2 Q		50.90		48.85														99.75	Rutile
2013-D84	SITE 2 R				0.34			54.57										2.48	97.87	Ca-phosphate
2013-D84	SITE 2 S	23.04		20.40	34.88		7.05						0.29						85.65	Chlorite
2013-D84	SITE 2 T	45.55	0.42	31.08	3.15		0.81		9.43	0.41									90.85	Chlorite
2013-D84	SITE 2 U							53.78										1.98	95.35	Ca-phosphate
2013-D84	SITE 2 V	46.89	0.37	32.48	3.23		0.67		9.73	0.53									93.89	Al-celadonite
2013-D84	SITE 2 W	105.47																	105.47	Quartz

Table 16: Sample 2013-D90

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Total	Mineral
							wt%								
2013-D90	SITE 1 A													103.75	Quartz
2013-D90	SITE 1 B	104.90												104.90	Quartz
2013-D90	SITE 1 C				52.86		3.03	0.49						56.38	Siderite
2013-D90	SITE 1 D	0.95			53.59		1.65	0.54					0.24	56.98	Siderite
2013-D90	SITE 1 E				53.65		3.78	0.40					0.21	58.04	Siderite
2013-D90	SITE 1 F				53.01		3.66	0.52						57.18	Siderite
2013-D90	SITE 1 G				53.04		3.56	0.43					0.26	57.29	Siderite
2013-D90	SITE 1 H				52.67		3.75	0.41						56.84	Siderite
2013-D90	SITE 1 I				53.37		3.10	0.37						56.84	Siderite
2013-D90	SITE 1 J	48.00	0.36	31.45	3.84		0.70		9.62	0.53				94.49	Al-Celadonite
2013-D90	SITE 1 K	47.26		31.60	3.97		0.65		9.75	0.49				94.28	Al-Celadonite
2013-D90	SITE 1 L	47.46	0.53	33.63	3.43		0.41		9.63	0.50				95.60	Al-Celadonite
2013-D90	SITE 1 M				26.09		3.86	25.40						55.34	ankerite
2013-D90	SITE 2 A	103.21			0.33									103.54	Quartz
2013-D90	SITE 2 B	103.61												103.61	Quartz
2013-D90	SITE 2 C	103.93												103.93	Quartz
2013-D90	SITE 2 D				52.28		3.55	0.61						56.44	Siderite
2013-D90	SITE 2 E				53.69		3.78	0.37						57.84	Siderite
2013-D90	SITE 2 F	22.78		21.63	40.96		2.52							87.88	Chlorite
2013-D90	SITE 2 G				54.28		3.57	0.55						58.40	Siderite
2013-D90	SITE 2 H				53.15		3.74	0.33						57.23	Siderite
2013-D90	SITE 2 I				53.56		3.71	0.37						57.64	Siderite
2013-D90	SITE 2 J				25.30		4.02	24.49						53.82	ankerite
2013-D90	SITE 2 K				26.12		4.08	25.07						55.27	ankerite
2013-D90	SITE 2 L	45.53	0.53	31.81	3.25		0.52		9.56	0.35				91.55	Al-Celadonite
2013-D90	SITE 2 M	44.79	0.57	31.88	3.87		0.47		9.42	0.53				91.51	Al-Celadonite
2013-D90	SITE 2 N	45.71	0.52	31.83	2.70		0.56		9.65	0.43				91.40	Al-Celadonite
2013-D90	SITE 2 O	48.98		30.61	3.12		0.49		8.92	0.43				93.44	Al-Celadonite
2013-D90	SITE 2 P	46.78		31.68	3.31		0.58		9.52	0.43				93.53	Al-Celadonite

Table 17: Sample 2013-D92

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	WO_3	Total	Mineral
								wt%								
2013-D92	d92 site 1 a	105.70													105.70	Quartz
2013-D92	d92 site 1 b				54.25		3.38	0.88					0.30		58.81	Sidertie
2013-D92	d92 site 1 c				26.73		3.73	25.98							56.45	Ankerite
2013-D92	d92 site 1 d	105.61													105.61	Quartz
2013-D92	d92 site 1 e				56.43		1.70						0.34		58.46	Sidertie
2013-D92	d92 site 1 f				54.49		3.60	0.47							58.56	Sidertie
2013-D92	d92 site 1 g				26.63		3.91	25.99					0.21		56.73	Ankerite
2013-D92	d92 site 2 a	108.64													108.64	Quartz
2013-D92	d92 site 2 c				55.21		3.69	0.66							59.55	Sidertie
2013-D92	d92 site 2 d				24.73		5.10	27.04							56.87	Ankerite
2013-D92	d92 site 2 e	108.19													108.19	Quartz
2013-D92	d92 site 2 f	47.59	0.57	33.48	3.07		0.48		10.11	0.51					95.81	Al-celadonite
2013-D92	d92 site 2 g				27.01		3.89	26.26							57.16	Ankerite
2013-D92	d92 site 2 h				55.93		3.38	0.46					0.21		59.98	Sidertie
2013-D92	d92 site 3 a	105.57													105.57	Quartz
2013-D92	d92 site 3 b	45.26	0.54	32.09	3.37		0.44		9.66	0.45					91.82	Al-celadonite
2013-D92	d92 site 3 c				55.49		3.41	0.54					0.38		59.82	Sidertie
2013-D92	d92 site 3 d	106.51													106.51	Quartz
2013-D92	d92 site 3 e	46.13	0.36	33.33	2.78		0.54		9.69	0.64					93.47	Al-celadonite
2013-D92	d92 site 3 f				0.81			55.54			40.62			2.10	99.07	Ca-phosphate
2013-D92	d92 site 3 g				55.18		3.39	0.45							59.01	Sidertie

Table 18: Sample 2013-D96

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Total	Mineral
							wt%								
2013-D96	SITE 1 A	107.24												107.24	Quartz
2013-D96	SITE 1 B	100.85												100.85	Quartz
2013-D96	SITE 1 C				51.45		4.58	0.39						56.42	Siderite
2013-D96	SITE 1 D				50.96		5.13	0.37						56.45	Siderite
2013-D96	SITE 1 E	45.82	0.47	31.34	3.66		0.63		9.79	0.39				92.11	Al-Celadonite
2013-D96	SITE 1 F	46.23	0.37	29.90	5.10		0.84		9.90					92.34	Al-Celadonite
2013-D96	SITE 1 G				50.50		5.05	0.53						56.08	Siderite
2013-D96	SITE 1 H				50.41		5.07	0.44						55.92	Siderite
2013-D96	SITE 1 I				52.04		3.53	0.60						56.17	Siderite
2013-D96	SITE 1 J				51.86		3.72	0.54						56.12	Siderite
2013-D96	SITE 1 K				50.02		4.91	0.49						55.42	Siderite
2013-D96	SITE 1 L				49.90	0.29	4.95	0.35						55.49	Siderite
2013-D96	SITE 2 A	101.62												101.62	Quartz
2013-D96	SITE 2 B	104.38												104.38	Quartz
2013-D96	SITE 2 C				24.80		4.49	24.86						54.16	ankerite
2013-D96	SITE 2 D				23.88		5.09	25.52						54.50	ankerite
2013-D96	SITE 2 E				23.65		5.33	25.37						54.35	ankerite
2013-D96	SITE 2 F				51.36		5.06	0.38						56.80	Siderite
2013-D96	SITE 2 G				23.52		5.47	25.09						54.08	ankerite
2013-D96	SITE 2 H				51.80		4.66	0.45						56.91	Siderite
2013-D96	SITE 2 I				50.45		4.95	0.59						56.00	Siderite
2013-D96	SITE 2 J	47.14		31.00	3.12		0.88		9.61	0.56				92.32	Al-Celadonite
2013-D96	SITE 2 K				24.08		5.70	25.37						55.16	ankerite
2013-D96	SITE 2 L				23.66		5.26	25.20						54.12	ankerite
2013-D96	SITE 2 M				50.92		4.54	0.40						55.85	Siderite
2013-D96	SITE 2 N				55.99								0.30	56.29	Fe-oxide
2013-D96	SITE 2 O				50.85		4.98	0.91						56.75	Siderite

Table 18: Sample 2013-D96; Continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Total	Mineral
							wt%								
2013-D96	SITE 2 P				49.82		6.66	0.35						56.82	Siderite
2013-D96	SITE 2 Q	47.63	0.38	31.86	5.12		0.70		9.78	0.43				98.78	albite
2013-D96	SITE 2 R				0.44			53.48			39.71			93.63	ca-phosphate
2013-D96	SITE 3 A	104.35												104.35	Quartz
2013-D96	SITE 3 B	104.28												104.28	Quartz
2013-D96	SITE 3 C	104.43												104.43	Quartz
2013-D96	SITE 3 D				24.11		5.44	26.33						55.88	ankerite
2013-D96	SITE 3 E				23.17		6.80	26.30						56.27	ankerite
2013-D96	SITE 3 F				24.38		5.07	26.04						55.49	ankerite
2013-D96	SITE 3 G				52.42		4.94	0.44						57.79	Siderite
2013-D96	SITE 3 H				51.31	0.29	4.94	0.39						56.93	Siderite
2013-D96	SITE 3 I				52.33		5.32	0.31						57.95	Siderite
2013-D96	SITE 3 J	46.86		31.30	3.30		0.70		9.26	0.64				92.05	Al-Celadonite
2013-D96	SITE 3 K	45.23		31.19	3.31		0.72		9.27	0.40				90.13	Al-Celadonite
2013-D96	SITE 3 L				23.22		5.43	25.44						54.09	ankerite
2013-D96	SITE 3 M				49.41	0.30	6.95	0.60						57.27	Siderite
2013-D96	SITE 3 N				50.19	0.39	7.36	0.57						58.51	Siderite
2013-D96	SITE 3 O				57.26			0.29						57.55	Siderite
2013-D96	SITE 3 P	50.75	0.75	29.75	7.23		1.06		10.12					100.29	Al-Celadonite

Table 19: Sample 2013-D97

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CoO	Total	Mineral
							wt%								
2013-D97	d97 site 1 a	105.29												105.29	Quartz
2013-D97	d97 site 1 b	43.72	0.46	30.75	3.23		0.51		9.55	0.56				88.77	Al-celadonite
2013-D97	d97 site 1 c				53.31		4.69	0.61						58.61	Siderite
2013-D97	d97 site 1 d	105.33												105.33	Quartz
2013-D97	d97 site 1 e				24.50		4.68	26.06						55.24	Ankerite
2013-D97	d97 site 1 e2	44.93	0.27	31.57	3.57		0.53		9.73	0.49				91.09	Al-celadonite
2013-D97	d97 site 1 f				52.87		5.28	0.52					0.29	58.95	Siderite
2013-D97	d97 site 1 g				52.75		5.36	0.43						58.54	Siderite
2013-D97	d97 site 1 g2	46.83	0.31	33.18	3.29		0.47		9.79	0.59				94.46	Al-celadonite
2013-D97	d97 site 1 h				24.56		5.37	26.23						56.15	Ankerite
2013-D97	d97 site 2 a	105.96												105.96	Quartz
2013-D97	d97 site 2 b				53.13	0.29	5.02	0.47						58.90	Siderite
2013-D97	d97 site 2 c				25.04		5.57	26.19						56.80	Ankerite
2013-D97	d97 site 2 d	48.49	0.49	31.36	4.59		0.86		10.36	0.38				96.53	Al-celadonite
2013-D97	d97 site 2 e	106.63												106.63	Quartz
2013-D97	d97 site 2 f				53.51		5.40	0.44					0.24	59.58	Siderite
2013-D97	d97 site 2 g				24.98		5.28	26.21						56.48	Ankerite
2013-D97	d97 site 2 h	47.84		33.15	4.08		0.58		9.83	0.68				96.15	Al-celadonite
2013-D97	d97 site 3 a	104.08												104.08	Quartz
2013-D97	d97 site 3 b	46.91		31.80	3.94		0.59		10.31	0.41				93.96	Al-celadonite
2013-D97	d97 site 3 c				50.72		5.91	0.47						57.10	Siderite
2013-D97	d97 site 3 d				24.49		4.90	25.53						54.92	Ankerite
2013-D97	d97 site 3 e	103.02												103.02	Quartz
2013-D97	d97 site 3 f	45.65	0.33	32.51	3.13		0.51		10.04	0.50				92.68	Al-celadonite
2013-D97	d97 site 3 g				52.11		4.49	0.49						57.08	Siderite
2013-D97	d97 site 3 h				23.79		4.95	26.24						54.98	Ankerite

Table 20: Sample 2013-D102

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	Total	Mineral
						wt%						
2013-D102	SITE 1 A	105.32									105.32	Quartz
2013-D102	SITE 1 B	107.21			0.45						107.66	Quartz
2013-D102	SITE 1 C				50.63		5.49	0.49			56.60	Siderite
2013-D102	SITE 1 D				51.22		5.35	0.43			57.00	Siderite
2013-D102	SITE 1 E				50.44	0.34	5.26	0.36			56.40	Siderite
2013-D102	SITE 1 F				51.21		5.50	0.57			57.28	Siderite
2013-D102	SITE 1 G				24.89		5.64	26.14			56.68	ankerite
2013-D102	SITE 1 H	47.93	0.61	29.58	5.13		0.91		10.20		94.36	Al-Celadonite
2013-D102	SITE 1 I				50.96		5.35	0.55			56.86	ankerite
2013-D102	SITE 1 J	47.02	0.66	31.25	4.15		0.67		9.87		93.62	Al-Celadonite
2013-D102	SITE 1 K	47.85	0.32	33.20	3.27		0.58		9.80	0.65	95.66	Al-Celadonite
2013-D102	SITE 1 L	46.85	0.46	30.16	4.99		0.77		10.17		93.40	Al-Celadonite
2013-D102	SITE 1 M	47.62	0.39	30.44	5.28		0.74		10.05		94.52	Al-Celadonite
2013-D102	SITE 1 N	47.10		31.70	3.90		0.62		9.86	0.43	93.61	Al-Celadonite
2013-D102	SITE 2 A	100.41									100.41	Quartz
2013-D102	SITE 2 B	101.85									101.85	Quartz
2013-D102	SITE 2 C				22.93		5.53	25.13			53.59	ankerite
2013-D102	SITE 2 D				49.96		5.13	0.46			55.55	Siderite
2013-D102	SITE 2 E				49.39		5.28	0.55			55.21	Siderite
2013-D102	SITE 2 F				49.93		5.16	0.55			55.64	Siderite
2013-D102	SITE 2 G				22.87		5.28	24.55			52.70	ankerite
2013-D102	SITE 2 H				22.79	0.26	5.44	25.37			53.86	ankerite
2013-D102	SITE 2 I	45.46		30.85	3.32		0.68		9.90		90.20	Al-Celadonite
2013-D102	SITE 2 J	46.02	0.56	29.14	5.26		0.79		10.18		91.95	Al-Celadonite
2013-D102	SITE 2 K	45.67	0.28	31.43	2.82		0.77		9.56	0.50	91.04	Al-Celadonite
2013-D102	SITE 2 L	45.88	0.53	28.58	4.85		0.77		9.90		90.52	Al-Celadonite
2013-D102	SITE 3 A	103.18									103.18	Quartz
2013-D102	SITE 3 B	105.85									105.85	Quartz
2013-D102	SITE 3 C				23.62		4.88	26.79			55.28	ankerite
2013-D102	SITE 3 D				24.51		5.56	25.95			56.02	ankerite
2013-D102	SITE 3 E				23.68		5.77	26.16			55.60	ankerite
2013-D102	SITE 3 F				16.79		10.67	26.92			54.38	ankerite
2013-D102	SITE 3 H				16.66	0.30	11.09	27.41			55.46	ankerite
2013-D102	SITE 3 I				18.50		9.74	27.02			55.27	ankerite
2013-D102	SITE 3 J				51.94		5.61	0.69			58.24	Siderite
2013-D102	SITE 3 K				51.86	0.29	5.61	0.42			58.17	Siderite
2013-D102	SITE 3 L	47.75	0.58	31.52	4.50		0.66		9.92		94.92	Al-Celadonite

Table 21: Sample 2013-D103

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O wt%	P_2O_5	V_2O_3	CoO	Ag_2O	La_2O_3	CeO_2	N_d2O_3	WO_3	Total	Mineral
2013-D103	SITE 1 A				22.80	0.54	6.63	26.19											56.15	Ankerite
2013-D103	SITE 1 B	49.95	0.34	27.40	6.65		1.38		10.67										96.39	Al-celadonite
2013-D103	SITE 1 C				15.80	0.42	10.67	27.31											54.19	Ankerite
2013-D103	SITE 1 D	48.45	0.50	26.48	6.32		1.44		9.92										93.11	Al-celadonite
2013-D103	SITE 1 E	105.81																	105.81	Quartz
2013-D103	SITE 1 F				22.09		7.08	26.74											55.91	Ankerite
2013-D103	SITE 1 G				14.49	0.63	10.79	28.81											54.72	Ankerite
2013-D103	SITE 1 H	48.98	0.52	26.89	6.43		1.58		10.54										94.93	Al-celadonite
2013-D103	SITE 1 J				50.91		6.65	0.48											58.04	Siderite
2013-D103	SITE 1 K				16.66	0.84	10.03	27.97											55.50	Ankerite
2013-D103	SITE 1 L				21.91		7.49	26.66											56.07	Ankerite
2013-D103	SITE 1 L2	106.49			0.43														106.92	Quartz
2013-D103	SITE 1 M				13.12	0.32	12.72	27.87											54.03	Ankerite
2013-D103	SITE 1 N				14.80	0.82	10.67	29.12											55.42	Ankerite
2013-D103	SITE 1 O	48.67	0.46	26.68	6.60		1.52		10.15										94.08	Al-celadonite
2013-D103	SITE 1 P				50.35	0.53	6.38	0.46											57.72	Siderite
2013-D103	SITE 1 R				50.30	0.42	6.76	0.39											57.87	Siderite
2013-D103	SITE 1 S				22.68	0.58	6.70	26.67											56.64	Ankerite
2013-D103	SITE 1 T				49.19		7.83	0.35											57.37	Siderite
2013-D103	SITE 1 U	49.22	0.43	28.02	6.21		1.31		10.18										95.37	Al-celadonite
2013-D103	SITE 1 V				21.98		7.10	25.98											55.05	Ankerite
2013-D103	SITE 1 W				50.74	0.32	7.19	0.34					0.40						58.99	Siderite
2013-D103	SITE 1 X	48.48		26.95	7.00		1.43		10.36										94.22	Al-celadonite
2013-D103	SITE 2 A	106.55																	106.55	Quartz
2013-D103	SITE 2 B	47.61	0.45	27.22	6.32		1.31		10.22										93.13	Al-celadonite
2013-D103	SITE 2 C				22.75		6.84	26.69											56.28	Ankerite
2013-D103	SITE 2 D				21.48		7.46	26.56											55.51	Ankerite
2013-D103	SITE 1 E				0.41			54.92										2.00	98.40	Ca-phosphate
2013-D103	SITE 2 F	49.39		27.30	5.95		1.59		10.51										94.75	Al-celadonite

Table 22: Sample 2013-D103; second analysis

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O wt%	P_2O_5	V_2O_3	CoO	Ag_2O	La_2O_3	CeO_2	N_d2O_3	WO_3	Total	Mineral
2013-D103	SITE 1 G	48.84	0.36	26.78	6.44		1.48		10.46										94.36	Al-celadonite
2013-D103	SITE 1 H	106.20																	106.20	Quartz
2013-D103	SITE 1 I				22.09		7.09	26.77											55.95	Ankerite
2013-D103	SITE 2 J				0.45			54.90			40.59							2.00	97.93	Ca-phosphate
2013-D103	SITE 2 K				22.75		6.94	26.35											56.05	Ankerite
2013-D103	SITE 1 L				16.86	0.64	10.36	27.77											55.64	Ankerite
2013-D103	SITE 2 M				49.30		7.31	0.80					0.20						57.60	Siderite
2013-D103	SITE 2 N	48.71	0.76	27.60	6.60		1.22		10.15										95.04	Al-celadonite
2013-D103	SITE 2 O				50.69		6.70	0.72					0.14						58.24	Siderite
2013-D103	SITE 2 P	49.00	0.50	26.98	6.62		1.37		10.40										94.85	Al-celadonite
2013-D103	SITE 2 Q							55.23			41.24							2.03	98.50	Ca-phosphate
2013-D103	SITE 2 R	47.88	0.60	27.35	6.64		1.12		10.45										94.03	Al-celadonite
2013-D103	SITE 2 S				0.88			53.87			40.67							2.92	98.34	ca phos
2013-D103	SITE 2 S2				50.22		7.53	0.49					0.29						58.53	Siderite
2013-D103	SITE 2 T	105.88			0.28														106.16	Quartz
2013-D103	SITE 2 U				21.24	0.51	7.32	26.68											55.74	Ankerite
2013-D103	SITE 2 V	49.03	0.40	27.09	6.16		1.38		10.63										94.68	Al-celadonite
2013-D103	SITE 2 W				50.53	0.55	6.84	0.46					0.37						58.75	Siderite
2013-D103	SITE 3 A	106.92																	106.92	Quartz
2013-D103	SITE 3 B				23.06		6.57	26.11											55.73	Ankerite
2013-D103	SITE 3 C	48.72	0.42	27.15	6.21		1.51		10.66										94.67	Al-celadonite
2013-D103	SITE 3 D	47.52	0.81	26.24	7.26		1.12		10.35										93.29	Al-celadonite
2013-D103	SITE 3 E				23.11		6.33	26.52											55.96	Ankerite
2013-D103	SITE 3 F				19.71	0.64	8.23	27.52											56.09	Ankerite
2013-D103	SITE 3 G	106.50																	106.50	Quartz
2013-D103	SITE 3 H	47.84	0.97	28.13	6.30		1.05		10.43										94.71	Al-celadonite
2013-D103	SITE 3 I				0.33			54.68			40.89							2.25	98.15	Ca-phosphate
2013-D103	SITE 3 J			0.31	0.53			54.17			40.61							2.39	98.01	Ca-phosphate
2013-D103	SITE 3 K				22.36		7.19	26.53											56.09	Ankerite
2013-D103	SITE 3 L				16.82	0.32	10.61	27.33											55.08	Ankerite
2013-D103	SITE 3 M	48.33		26.62	6.41		1.51		10.26										93.13	Al-celadonite
2013-D103	SITE 3 N	1.68		1.28	0.71			0.60	0.43		28.72				18.72	31.50	8.92	2.56	95.11	Monazite
2013-D103	SITE 3 O				51.05	0.34	6.06	0.70					0.34						58.49	Siderite
2013-D103	SITE 3 P	106.20			0.34														106.55	Quartz
2013-D103	SITE 3 Q	50.73	0.66	28.37	6.67		1.48		10.56										98.49	Al-celadonite
2013-D103	SITE 3 S				50.92		6.50	0.49											57.91	Siderite
2013-D103	SITE 3 T	47.05	0.80	28.40	6.32		0.99		10.25										93.80	Al-celadonite
2013-D103	SITE 3 U				50.79	0.55	6.74	0.48					0.20						58.76	Siderite
2013-D103	SITE 3 V				51.06	0.48	6.83	0.53					0.29						59.19	Siderite
2013-D103	SITE 3 W	47.53	0.96	28.64	6.26		0.96		10.46										94.81	Al-celadonite
2013-D103	SITE 3 X	0.73			49.65	0.32	7.44	0.33					0.25						58.72	Siderite
2013-D103	SITE 3 Y				51.70	0.47	6.25	0.45					0.04						58.91	Siderite

Table 3: Sample KCD25

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	Total	Mineral
						wt%						
KCD25	SITE 1 A	47.55		34.21	3.31		0.53		10.61	0.34	96.55	Al-celadonite
KCD 25	SITE 1 B	47.04	0.43	32.60	4.22				10.25	0.50	95.04	Al-celadonite
KCD25	SITE 1 C				53.96		4.09	0.67			58.72	Siderite
KCD25	SITE 1 D				54.91		3.51	0.51			58.93	Siderite
KCD25	SITE 1 E	47.59	0.43	32.61	4.57		0.40		10.27	0.47	96.35	Al-celadonite
KCD25	SITE 1 F	47.11	0.52	31.92	5.29		0.41		9.90	0.37	95.53	Al-celadonite
KCD25	SITE 2 A	102.48									102.48	Quartz
KCD25	SITE 2 B	102.13									102.13	Quartz
KCD25	SITE 2 C	45.58	0.56	30.46	4.78		0.42		9.77	0.32	91.88	Al-celadonite
KCD25	SITE 2 D	43.43	0.49	30.35	4.26				9.44	0.54	88.51	Al-celadonite
KCD25	SITE 2 E				51.76		3.75	0.30			55.81	Siderite
KCD25	SITE 2 F				51.96		3.59	0.43			55.98	Siderite
KCD25	SITE 2 G	46.27	0.49	31.27	4.67		0.35		9.85	0.56	93.47	Al-celadonite
KCD25	SITE 2 H	45.05	0.52	30.82	4.70		0.50		9.72		91.31	Al-celadonite
KCD25	SITE 3 A	104.25									104.25	Quartz
KCD25	SITE 3 B	106.05									106.05	Quartz
KCD25	SITE 3 C				54.04		3.90	0.51			58.45	Siderite
KCD25	SITE 3 D				53.32		4.20	0.62			58.14	Siderite
KCD25	SITE 3 E	47.15		31.21	4.64		0.61		9.84	0.40	93.86	Al-celadonite
KCD25	SITE 3 F	47.83		32.70	3.36		0.54		10.04	0.38	94.84	Al-celadonite
KCD25	SITE 4 A				50.63		3.63	0.44			54.70	Siderite
KCD25	SITE 4 B				50.77		3.66	0.38			54.81	Siderite
KCD25	SITE 4 C	100.37			0.27						100.64	Quartz
KCD25	SITE 4 D	100.74									100.74	Quartz
KCD25	SITE 4 E	45.74	0.35	31.25	4.25		0.45		9.88	0.61	92.53	Al-celadonite
KCD25	SITE 4 F	44.21	0.68	30.58	4.39		0.43		9.98		90.26	Al-celadonite

Appendix 5a: Karagba-Chaffeur-Durba Deposit-Host and Alteration EDS data

Table 1: Sample PB12-D02

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
							Elemental %							
PB12-D02A	SITE A B	52.64	46.90					0.81					100.35	Pyrite
PB12-D02A	SITE A C	53.27	47.24										100.51	Pyrite
PB12-D02A	SITE A E	21.42	35.42					41.26					98.09	Arsenopyrite
PB12-D02A	SITE B B	52.10	46.60										98.69	Pyrite
PB12-D02A	SITE B D	28.71	10.22			41.91		18.59					99.43	Pyrite
PB12-D02A	SITE C B	52.58	46.70										99.28	Pyrite
PB12-D02A	SITE C C	52.81	46.66										99.47	Pyrite
PB12-D02A	SITE C D	52.20	46.51										98.72	Pyrite
PB12-D02A	SITE D A	53.04	47.13										100.17	Pyrite
PB12-D02A	SITE D B	53.41	47.18										100.59	Pyrite
PB12-D02A	SITE D C	22.16	35.79					40.61					98.56	Arsenopyrite
PB12-D02A	SITE D D	29.18	10.91			40.86		18.41			1.10		100.45	Tennantite
PB12-D02A	SITE E A	52.94	46.98										99.92	Pyrite
PB12-D02A	SITE E B	52.73	46.59										99.32	Pyrite
PB12-D02A	SITE E C	21.75	36.21					41.41					99.37	Arsenopyrite
PB12-D02A	SITE E D	21.78	35.60					41.22					98.60	Arsenopyrite
PB12-D02A	SITE G A	52.13	46.25										98.38	Pyrite
PB12-D02A	SITE G B	52.39	46.39										98.78	Pyrite
PB12-D02A	SITE G C	21.21	35.12					41.50					97.83	Arsenopyrite
PB12-D02A	SITE G D	21.39	34.91					41.07					97.38	Arsenopyrite
PB12-D02A	SITE G E	20.52	34.54					41.41					96.47	Arsenopyrite
PB12-D02A	SITE G F	20.64	33.71					40.27					94.62	Arsenopyrite
PB12-D02A	SITE G D	21.01	35.60					42.47					99.09	Arsenopyrite
PB12-D02A	SITE G C	21.39	35.42					41.61					98.43	Arsenopyrite
PB12-D02A	SITE H A	51.75	46.77					1.97					100.49	As-Pyrite
PB12-D02A	SITE H B	53.28	47.15										100.43	Pyrite
PB12-D02A	SITE H D	29.84	9.37			41.72		19.94					100.87	Tennantite

Table 2: Sample PB12-D02A

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
							Elemental %							
PB12-D02A	SITE 1 A	54.28	46.33										100.61	Pyrite
PB12-D02A	SITE 1 B	51.83	44.34					2.60					98.77	As-Pyrite
PB12-D02A	SITE 1 C	53.37	45.19										98.56	Pyrite
PB12-D02A	SITE 1 D	53.58	45.57										99.15	Pyrite
PB12-D02A	SITE 1 E	54.23	46.19										100.43	Pyrite
PB12-D02A	SITE 1 F	22.85	34.78					40.05					97.68	Arsenopyrite
PB12-D02A	SITE 1 G	53.72	45.23										98.95	Pyrite
PB12-D02A	SITE 1 H	53.53	45.20										98.72	Pyrite
PB12-D02A	SITE 2 A	53.95	45.98										99.93	Pyrite
PB12-D02A	SITE 2 B	54.42	46.44										100.86	Pyrite
PB12-D02A	SITE 2 C	53.34	45.57					2.09					101.00	As-Pyrite
PB12-D02A	SITE 2 D	54.98	46.44										101.42	Pyrite
PB12-D02A	SITE 2 E	54.75	46.58										101.33	Pyrite
PB12-D02A	SITE 2 I	22.01	35.62					42.17					99.80	Arsenopyrite

Table 3: Sample PB12-D08

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
							Elemental %							
PB12-D08	SITE A A	52.61	46.63										99.25	Pyrite
PB12-D08	SITE A B	52.59	46.06										98.65	Pyrite
PB12-D08	SITE B A	52.31	46.27										98.59	Pyrite
PB12-D08	SITE B B	52.96	46.56										99.52	Pyrite
PB12-D08	SITE C A	52.76	46.35										99.11	Pyrite
PB12-D08	SITE C B	52.67	46.94										99.60	Pyrite
PB12-D08	SITE C C	26.06	6.20			38.65		5.76		1.98	21.71		100.37	Tennantite
PB12-D08	SITE D A	53.02	47.34										100.35	Pyrite

Table 4: Sample 2013-D5

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
							Elemental %							
2013-D5	SITE 1 A	54.74	45.72										100.46	Pyrite
2013-D5	SITE 1 B	54.24	46.02					0.54					100.81	As-Pyrite
2013-D5	SITE 1 C	54.78	45.94										100.71	Pyrite
2013-D5	SITE 1 D	22.31	35.08					43.37					100.76	Arsenopyrite
2013-D5	SITE 1 E	21.50	35.47					41.63					98.60	Arsenopyrite
2013-D5	SITE 1 F	22.46	35.45					42.42					100.34	Arsenopyrite
2013-D5	SITE 1 G	21.77	35.20					43.57					100.53	Arsenopyrite
2013-D5	SITE 1 H	41.29	59.61										100.90	Pyrite
2013-D5	SITE 1 I	23.31	35.75					42.45					101.51	Arsenopyrite
2013-D5	SITE 1 K	22.35	35.42					42.51					100.27	Arsenopyrite
2013-D5	SITE 1 M	23.01	35.59					41.92					100.51	Arsenopyrite
2013-D5	SITE 1 N	53.22	45.33					1.97					100.52	As-Pyrite
2013-D5	SITE 1 N2	54.52	46.15										100.67	Pyrite
2013-D5	SITE 1 O	54.60	46.45										101.05	Pyrite
2013-D5	SITE 1 O2	52.57	45.47					2.56					100.60	As-Pyrite
2013-D5	SITE 1 P	54.80	46.07										100.88	Pyrite
2013-D5	SITE 1 Q	54.68	46.01										100.69	Pyrite
2013-D5	SITE 1 R	22.27	35.53					42.66					100.45	Arsenopyrite
2013-D5	SITE 1 S	22.00	35.48					42.74					100.22	Arsenopyrite
2013-D5	SITE 1 T	22.49	35.62					42.24					100.35	Arsenopyrite
2013-D5	SITE 1 U	36.10	29.90			33.37							99.37	Chalcopyrite
2013-D5	SITE 1 V	40.62	60.84										101.46	Pyrite
2013-D5	SITE 1 W	55.16	45.81										100.98	Pyrite
2013-D5	SITE 1 X	54.47	45.76										100.23	Pyrite
2013-D5	SITE 1 Y	54.77	46.09										100.86	Pyrite
2013-D5	SITE 1 A	55.34	46.32										101.67	Pyrite
2013-D5	SITE 2 B	55.18	46.18										101.35	Pyrite

Table 4: Sample 2013-D5 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
							Elemental %							
2013-D5	SITE 2 C4	21.62	34.82					42.92					99.36	Arsenopyrite
2013-D5	SITE 2 F	54.60	45.96										100.56	Pyrite
2013-D5	SITE 2 H	54.82	46.64										101.45	Pyrite
2013-D5	SITE 2 K	55.18	46.13										101.30	Pyrite
2013-D5	SITE 2 N	55.12	46.31										101.43	Pyrite
2013-D5	SITE 2 P	21.72	35.40					43.27					100.39	Chalcopyrite
2013-D5	SITE 2 Q	21.78	34.75					42.02					98.55	Arsenopyrite
2013-D5	SITE 2 T	54.31	45.86										100.17	Pyrite
2013-D5	SITE 2 U	21.22	34.88					42.57					98.68	Arsenopyrite
2013-D5	SITE 3 A	54.36	46.09										100.45	Pyrite
2013-D5	SITE 3 B	54.84	46.35										101.19	Pyrite
2013-D5	SITE 3 C	53.27	45.53					2.39					101.19	As-Pyrite
2013-D5	SITE 3 D	55.33	46.03										101.36	Pyrite
2013-D5	SITE 3 E	54.66	45.93										100.59	Pyrite
2013-D5	SITE 3 E2	53.31	45.46					1.93					100.69	As-Pyrite
2013-D5	SITE 3 F	54.98	46.11										101.10	Pyrite
2013-D5	SITE 3 G	54.73	46.16										100.90	Pyrite
2013-D5	SITE 3 H	53.92	45.73					2.03					101.68	As-Pyrite
2013-D5	SITE 3 I	55.78	47.00										102.78	Pyrite
2013-D5	SITE 1 J	22.61	35.92					43.00					101.53	Arsenopyrite
2013-D5	SITE 3 K	39.80	60.01										99.81	Pyrite
2013-D5	SITE 3 M	20.95	36.34					41.82					99.11	Arsenopyrite
2013-D5	SITE 3 N	40.15	60.28										100.42	Pyrite

Table 4: Sample 2013-D5 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
							Elemental %							
2013-D5	SITE 3 O	40.61	59.67										100.27	Pyrite
2013-D5	SITE 3 P	21.61	35.08					43.51					100.20	Arsenopyrite
2013-D5	SITE 3 Q	21.67	35.62					43.55					100.84	Arsenopyrite
2013-D5	SITE 3 R	21.76	36.11					43.27					101.13	Arsenopyrite
2013-D5	SITE 3 S	23.45	35.98					41.61					101.04	Arsenopyrite
2013-D5	SITE 3 T	40.18	59.76										99.94	Pyrite
2013-D5	SITE 3 U	23.80	35.76					42.17					101.73	Arsenopyrite
2013-D5	SITE 3 V	21.83	35.07					37.53					94.44	Arsenopyrite

Table 5: Sample 2013-D5-Second analysis

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D5	SITE 1 A	54.32	45.50										99.83	Pyrite
2013-D5	SITE 1 A	53.85	45.89										99.74	Pyrite
2013-D5	SITE 1 B	52.81	45.32					2.31					100.44	As-Pyrite
2013-D5	SITE 1 C	54.70	46.74										101.44	Pyrite
2013-D5	SITE 1 D	54.33	46.17					0.71					101.20	As-Pyrite
2013-D5	SITE 1 E	54.49	45.84										100.33	Pyrite
2013-D5	SITE 1 F	52.47	45.06					3.13					100.66	As-Pyrite
2013-D5	SITE 1 G	52.73	45.77					2.22					100.72	As-Pyrite
2013-D5	SITE 1 H	21.80	34.94					43.29					100.03	Arsenopyrite
2013-D5	SITE 1 I	21.90	34.99					43.10					99.99	Arsenopyrite
2013-D5	SITE 1 J	21.66	34.57					42.96					99.20	Arsenopyrite
2013-D5	SITE 1 K	21.51	34.81					43.58					99.90	Arsenopyrite
2013-D5	SITE 1 L	40.39	59.59										99.98	Pyrite
2013-D5	SITE 1 M	21.41	35.08					41.78					98.26	Arsenopyrite
2013-D5	SITE 2 A	54.81	46.59										101.39	Pyrite
2013-D5	SITE 2 B	54.87	46.13										101.00	Pyrite
2013-D5	SITE 2 C	54.79	46.57										101.37	Pyrite
2013-D5	SITE 2 D	54.07	46.09										100.16	Pyrite
2013-D5	SITE 2 E	55.15	46.27										101.42	Pyrite
2013-D5	SITE 2 F	54.64	45.93										100.57	Pyrite
2013-D5	SITE 2 G	22.31	35.03					43.93					101.27	Arsenopyrite
2013-D5	SITE 2 I	21.49	34.87					44.18					100.54	Arsenopyrite
2013-D5	SITE 2 J	16.21	33.21					41.21					90.63	Arsenopyrite
2013-D5	SITE 2 K	22.01	35.41					43.18					100.60	Arsenopyrite
2013-D5	SITE 2 M	21.09	33.92					41.82					96.82	Arsenopyrite
2013-D5	SITE 2 O	21.31	33.97					41.88					97.17	Arsenopyrite

Table 6: Sample 2013-D8

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D8	SITE 1 A	54.27	45.78										100.05	Pyrite
2013-D8	SITE 1 B	54.37	45.51										99.88	Pyrite
2013-D8	SITE 1 C	54.85	46.24										101.09	Pyrite
2013-D8	SITE 1 D	54.53	46.07										100.59	Pyrite
2013-D8	SITE 1 E	54.39	45.88										100.27	Pyrite
2013-D8	SITE 1 E2	54.30	46.43										100.73	Pyrite
2013-D8	SITE 1 F	54.37	46.04										100.41	Pyrite
2013-D8	SITE 1 G	54.51	46.31										100.82	Pyrite
2013-D8	SITE 1 H	54.10	45.22										99.31	Pyrite
2013-D8	SITE 1 I	54.07	45.25										99.32	Pyrite
2013-D8	SITE 1 J	53.98	45.72										99.70	Pyrite
2013-D8	SITE 1 K	54.11	45.95										100.06	Pyrite
2013-D8	SITE 1 L	53.57	45.44										99.01	Pyrite
2013-D8	SITE 1 M	54.11	45.50										99.61	Pyrite
2013-D8	SITE 1 N	53.87	45.26										99.13	Pyrite
2013-D8	SITE 2 A	55.29	46.90										102.20	Pyrite
2013-D8	SITE 2 B	54.70	46.58										101.28	Pyrite
2013-D8	SITE 2 C	39.05	59.39		0.46								98.89	As-Pyrite
2013-D8	SITE 2 D	36.78	30.25			33.27							100.30	Chalcopyrite
2013-D8	SITE 2 E	55.24	46.81										102.06	Pyrite
2013-D8	SITE 2 F	54.92	46.60										101.51	Pyrite
2013-D8	SITE 2 G	54.61	46.76										101.37	Pyrite
2013-D8	SITE 1 H	54.98	46.22										101.20	Pyrite
2013-D8	SITE 1 I	55.51	46.57										102.07	Pyrite
2013-D8	SITE 1 J	55.43	46.39										101.82	Pyrite

Table 6: Sample 2013-D8 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D8	SITE 1 K	54.92	46.33										101.25	Pyrite
2013-D8	SITE 2 L	54.90	46.04										100.94	Pyrite
2013-D8	SITE 2 M	27.38	6.62			35.31	3.76	1.95		2.37	27.24		104.61	ten/tet
2013-D8	SITE 2 N	54.25	45.99										100.24	Pyrite
2013-D8	SITE 1 O	55.18	46.33										101.51	Pyrite
2013-D8	SITE 2 P	54.75	46.52										101.27	Pyrite
2013-D8	SITE 2 Q	57.57	46.97										104.54	Pyrite
2013-D8	SITE 1 R	55.42	46.53										101.94	Pyrite
2013-D8	SITE 2 S	54.74	46.40										101.13	Pyrite
2013-D8	SITE 2 T	54.57	45.99										100.56	Pyrite
2013-D8	SITE 3 A	53.10	45.31					0.75					99.16	As-Pyrite
2013-D8	SITE 3 B	53.88	45.48										99.36	Pyrite
2013-D8	SITE 3 C	54.04	45.92										99.96	Pyrite
2013-D8	SITE 3 F	54.27	46.25										100.52	Pyrite
2013-D8	SITE 3 G	54.53	46.02										100.55	Pyrite
2013-D8	SITE 3 H	54.40	46.36										100.76	Pyrite

Table 7: Sample 2013-D12

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D12	SITE 1 A	54.56	45.69										100.25	Pyrite
2013-D12	SITE 1 C	54.49	46.31					0.64					101.44	As-Pyrite
2013-D12	SITE 1 E	54.68	45.69										100.37	Pyrite
2013-D12	SITE 1 G	54.81	46.14										100.95	Pyrite
2013-D12	SITE 1 I	54.08	45.30										99.38	Pyrite
2013-D12	SITE 1 J	54.20	46.08										100.28	Pyrite
2013-D12	SITE 1 K	54.88	45.89										100.78	Pyrite
2013-D12	SITE 1 L	54.19	45.75										99.94	Pyrite
2013-D12	SITE 1 N	53.67	44.87										99.25	Pyrite
2013-D12	SITE 1 O	55.28	45.65										100.94	Pyrite
2013-D12	SITE 1 P	54.03	45.93										99.96	Pyrite
2013-D12	SITE 1 R	54.16	46.12										100.28	Pyrite
2013-D12	SITE 1 S	55.27	46.04										101.32	Pyrite
2013-D12	SITE 1 T	53.73	45.58										99.31	Pyrite
2013-D12	SITE 1 U	54.48	45.96										100.44	Pyrite
2013-D12	SITE 1 V	54.41	45.72										100.13	Pyrite
2013-D12	SITE 2 A	53.25	45.74					1.36					100.35	As-Pyrite
2013-D12	SITE 2 B	54.65	46.13										100.77	Pyrite
2013-D12	SITE 2 C	54.42	46.06										100.48	Pyrite
2013-D12	SITE 2 F	54.19	45.59										99.78	Pyrite
2013-D12	SITE 2 G	54.20	45.76										99.95	Pyrite
2013-D12	SITE 2 I	54.03	45.55										99.58	Pyrite
2013-D12	SITE 2 J	54.37	45.78										100.14	Pyrite
2013-D12	SITE 2 K	54.48	46.29										100.78	Pyrite
2013-D12	SITE 2 L	54.02	45.76										99.78	Pyrite
2013-D12	SITE 3 A	54.30	45.78										100.09	Pyrite
2013-D12	SITE 3 B	54.35	46.24										100.59	Pyrite

Table 7: Sample 2013-D12 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D12	SITE 3 B2	54.09	45.56										99.65	Pyrite
2013-D12	SITE 3 F	54.53	45.79										100.32	Pyrite
2013-D12	SITE 3 G	54.36	45.84										100.20	Pyrite
2013-D12	SITE 3 H	54.24	45.47										99.70	Pyrite
2013-D12	SITE 3 I	54.22	45.79										100.01	Pyrite
2013-D12	SITE 3 J	54.18	45.43										99.60	Pyrite
2013-D12	SITE 3 K	53.27	45.57					1.40					100.23	As-Pyrite
2013-D12	SITE 3 L	52.93	45.25					0.99					99.17	As-Pyrite
2013-D12	SITE 3 M	52.84	45.04										97.89	Pyrite
2013-D12	SITE 3 N	54.55	45.74										100.29	Pyrite
2013-D12	SITE 3 O	53.79	45.25										99.04	Pyrite
2013-D12	SITE 3 P	54.35	45.66										100.01	Pyrite
2013-D12	SITE 3 Q	53.27	45.12										98.39	Pyrite
2013-D12	SITE 3 R	54.27	45.46										99.74	Pyrite
2013-D12	SITE 3 S	54.43	45.20										99.63	Pyrite
2013-D12	SITE 3 T	53.39	45.60					0.65					99.64	As-Pyrite
2013-D12	SITE 4 A	53.92	45.61										99.53	Pyrite
2013-D12	SITE 4 B	54.57	46.28										100.86	Pyrite
2013-D12	SITE 4 C	54.30	45.38										99.68	Pyrite
2013-D12	SITE 4 D	54.41	46.23										100.64	Pyrite
2013-D12	SITE 4 F	36.20	30.80			33.16							100.16	Chalcopyrite
2013-D12	SITE 4 G	35.61	30.52			33.42							99.56	Chalcopyrite
2013-D12	SITE 4 H	54.27	45.97										100.25	Pyrite
2013-D12	SITE 4 J	54.34	45.83										100.17	Pyrite
2013-D12	SITE 4 L	54.52	45.80										100.33	Pyrite
2013-D12	SITE 4 M	53.79	45.88										99.67	Pyrite
2013-D12	SITE 4 N	54.25	46.15										100.40	Pyrite

Table 8: Sample 2013-D14

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D14	SITE 1 A	52.58	44.77					1.23					98.58	As-Pyrite
2013-D14	SITE 1 B	53.19	44.78					0.66					98.63	As-Pyrite
2013-D14	SITE 1 C	52.77	44.55					0.65					97.97	As-Pyrite
2013-D14	SITE 1 D	54.84	46.07										100.91	Pyrite
2013-D14	SITE 1 E	36.69	30.94			33.73							101.36	Chalcopyrite
2013-D14	SITE 1 F	36.41	30.82			33.99							101.22	Chalcopyrite
2013-D14	SITE 1 G	36.31	30.83			34.19							101.33	Chalcopyrite
2013-D14	SITE 1 H	54.21	45.82										100.03	Pyrite
2013-D14	SITE 2 A	54.37	45.78										100.16	Pyrite
2013-D14	SITE 2 B	54.82	45.87										100.69	Pyrite
2013-D14	SITE 2 C	54.41	46.62										101.04	Pyrite
2013-D14	SITE 2 D	54.50	45.95										100.45	Pyrite
2013-D14	SITE 2 E	54.43	45.49										99.92	Pyrite
2013-D14	SITE 2 F	54.42	45.36										99.78	Pyrite
2013-D14	SITE 2 G	53.70	45.25										98.95	Pyrite
2013-D14	SITE 2 H	54.43	45.32										99.76	Pyrite

Table 9: Sample 2013-D22

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D22	site 1 a	55.08	46.16										101.24	Pyrite
2013-D22	site 1 b	54.72	45.78										100.50	Pyrite
2013-D22	site 1 d	54.61	46.25					0.42					101.28	Arsenopyrite
2013-D22	site 1 f	54.29	46.25										100.54	Pyrite
2013-D22	site 1 g	54.22	45.89					1.04					101.15	As-Pyrite
2013-D22	site 1 g2	54.49	45.97					0.21					100.67	As-Pyrite
2013-D22	site 1 h	54.34	45.66					0.69					100.69	As-Pyrite
2013-D22	site 1 i	54.67	46.24										100.92	Pyrite
2013-D22	site 1 j	54.84	46.12										100.96	Pyrite
2013-D22	site 1 k	54.71	46.10										100.81	Pyrite
2013-D22	site 1 l	54.40	46.21										100.62	Pyrite
2013-D22	site 1 m	54.60	46.28					0.53					101.42	As-Pyrite
2013-D22	site 1 m2	54.27	46.40										100.67	Pyrite
2013-D22	site 1 m3	33.24	36.69					35.43					105.36	Arsenopyrite
2013-D22	site 1 n	36.02	31.04			33.06							100.12	Chalcopyrite
2013-D22	site 1 o	54.56	46.38										100.94	Pyrite
2013-D22	site 1 p	54.39	45.96					0.93					101.27	As-Pyrite
2013-D22	site1 r	54.90	46.37										101.28	Pyrite
2013-D22	site 1 s	54.16	46.55					0.67					101.38	As-Pyrite
2013-D22	site 1 t	54.90	45.82										100.72	Pyrite
2013-D22	site 1 u	53.26	45.55					1.22					100.03	As-Pyrite
2013-D22	site 2 a	54.17	45.90					0.76					100.83	As-Pyrite
2013-D22	site 2 b	54.20	45.88										100.08	Pyrite
2013-D22	site 2 e	53.86	46.04					1.40					101.31	As-Pyrite
2013-D22	site 2 f	54.54	45.97										100.51	Pyrite
2013-D22	site 2 g	54.10	46.06					0.57					100.73	As-Pyrite
2013-D22	site 2 h	36.02	30.74			34.16							100.92	Chalcopyrite

Table 9: Sample 2013-D22 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D22	site 2 i	54.94	46.17										101.11	Pyrite
2013-D22	site 2 j	54.39	46.16					0.46					101.01	As-Pyrite
2013-D22	site 2 k	53.92	45.89										99.82	Pyrite
2013-D22	site 2 l	54.73	46.31										101.04	Pyrite
2013-D22	site 2 m	52.34	45.92					0.78					99.04	As-Pyrite
2013-D22	site 2 n	54.46	45.86										100.71	Pyrite
2013-D22	site 2 o	32.28	29.90			32.75							94.92	Chalcopyrite
2013-D22	site 2 p	35.79	30.46			34.20							100.45	Chalcopyrite
2013-D22	site 2 q	53.92	45.46					1.65					101.03	As-Pyrite
2013-D22	site 2 r	54.49	46.42										100.91	Pyrite
2013-D22	site 2 s	54.58	46.38										100.96	Pyrite
2013-D22	site 2 t	54.69	45.86										100.55	Pyrite
2013-D22	site 3 a	54.46	46.02										100.47	Pyrite
2013-D22	site 3 b	54.49	45.86										100.35	Pyrite
2013-D22	site 3 c	36.18	31.49			32.24							99.91	Chalcopyrite
2013-D22	site 3 d	54.64	45.99										100.63	Pyrite
2013-D22	site 3 e	42.12	33.46			21.95							97.54	Chalcopyrite
2013-D22	site 3 g	54.71	46.57										101.28	Pyrite
2013-D22	site 3 h	54.86	45.74										100.60	Pyrite
2013-D22	site 3 i	55.04	46.01										101.05	Pyrite
2013-D22	site 3 j	54.83	46.03										100.86	Pyrite

Table 9: Sample 2013-D22 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D22	site 3 k	55.02	46.37										101.39	Pyrite
2013-D22	site 3 l	54.79	46.12										100.91	Pyrite
2013-D22	site 4 a	53.83	45.67					0.99					100.49	As-Pyrite
2013-D22	site 4 b	55.07	46.31										101.38	Pyrite
2013-D22	site 4 c	54.68	45.98										100.66	Pyrite
2013-D22	site 4 d	54.23	46.14										100.38	Pyrite
2013-D22	site 4 e	53.85	46.25					0.99					101.10	As-Pyrite
2013-D22	site 4 f	54.42	46.27										100.68	Pyrite
2013-D22	site 4 g	53.99	45.76					1.16					100.91	As-Pyrite
2013-D22	site 4 h	53.92	45.72										99.64	Pyrite

Table 10: Sample 2013-D26

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D26	site 1 a	54.90	46.23										101.13	Pyrite
2013-D26	site 1 b	34.67	36.64			0.82		35.05					107.96	Arsenopyrite
2013-D26	site 1 c	54.58	46.04										100.62	Pyrite
2013-D26	site 1 e	54.47	46.21										100.68	Pyrite
2013-D26	site 1 f	54.29	46.00										100.29	Pyrite
2013-D26	site 1 g	54.71	46.40										101.12	Pyrite
2013-D26	site 1 h	53.26	46.01					1.25					100.52	As-Pyrite
2013-D26	site 1 i	55.02	46.29										101.31	Pyrite
2013-D26	site 1 j	53.24	45.37					1.93					100.55	As-Pyrite
2013-D26	site 1 k	54.40	45.87										100.27	Pyrite
2013-D26	site 1 l	54.36	45.79										100.15	Pyrite
2013-D26	site 1 m	54.28	46.00										100.28	Pyrite
2013-D26	site 1 n	53.59	46.13					1.62					101.34	As-Pyrite
2013-D26	site 1 o	54.49	45.67										100.17	Pyrite
2013-D26	site 1 p	54.10	46.13										100.23	Pyrite
2013-D26	site 1 q	54.10	46.15										100.25	Pyrite
2013-D26	site 1 s	53.56	45.80					0.99					100.35	As-Pyrite
2013-D26	site 1 t	54.03	45.57					0.50					100.10	As-Pyrite
2013-D26	site 1 u	54.41	46.28										100.69	Pyrite
2013-D26	site 2 a	54.92	46.11										101.03	Pyrite
2013-D26	site 2 b	54.43	45.79										100.22	Pyrite

Table 10: Sample 2013-D26 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D26	site 2 c	54.88	46.10										100.99	Pyrite
2013-D26	site 2 d	53.33	45.52					1.78					100.64	As-Pyrite
2013-D26	site 2 e	54.18	45.75					1.03					100.96	As-Pyrite
2013-D26	site 1 f	53.70	46.12					1.59					101.40	As-Pyrite
2013-D26	site 2 g	54.71	46.27										100.99	Pyrite
2013-D26	site 2 h	54.42	45.88										100.30	Pyrite
2013-D26	site 2 i	54.88	46.03										100.92	Pyrite
2013-D26	site 2 j	54.93	46.07										101.00	Pyrite
2013-D26	site 2 k	54.04	45.20					0.65					99.89	As-Pyrite
2013-D26	site 3 a	54.30	45.56										99.86	Pyrite
2013-D26	site 3 b	54.47	45.51										99.98	Pyrite
2013-D26	site 3 c	54.24	46.14										100.38	Pyrite
2013-D26	site 3 d	54.30	45.55										99.85	Pyrite
2013-D26	site 3 e	54.75	46.41										101.16	Pyrite
2013-D26	site 3 f	54.46	46.17					0.64					101.28	As-Pyrite
2013-D26	site 3 g	53.94	45.80										99.74	Pyrite
2013-D26	site 3 h	54.52	46.05										100.58	Pyrite

Table 11: Sample 2013-D50

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D50	SITE 1 B	39.06	60.63										99.68	Pyrite
2013-D50	SITE 1 C	52.60	46.52										99.13	Pyrite
2013-D50	SITE 1 D	39.48	60.75										100.23	Pyrite
2013-D50	SITE 1 E	52.56	46.79										99.35	Pyrite
2013-D50	SITE 2 B	39.16	60.23										99.39	Pyrite
2013-D50	SITE 2 C	52.87	46.72										99.58	Pyrite
2013-D50	SITE 2 D	38.92	60.68										99.61	Pyrite
2013-D50	SITE 2 E	52.54	46.85										99.39	Pyrite
2013-D50	SITE 3 C	38.56	59.63										98.56	Pyrite
2013-D50	SITE 3 D	52.33	46.87										99.20	Pyrite
2013-D50	SITE 3 E	38.70	60.33										99.03	Pyrite
2013-D50	SITE 3 F	52.62	46.84										99.46	Pyrite
2013-D50	SITE 4 A	52.97	48.19										101.16	Pyrite
2013-D50	SITE 4 B	39.58	60.67										100.25	Pyrite
2013-D50	SITE 4 C	39.07	60.89										99.96	Pyrite
2013-D50	SITE 4 D	20.12	32.08	3.44				45.41					101.05	Arsenopyrite
2013-D50	SITE 4 E	20.66	34.15	1.16				44.50					100.46	Arsenopyrite
2013-D50	SITE 4 F	20.35	31.85	3.55				44.20					99.95	Arsenopyrite

Table 12: Sample 2013-D90

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D90	SITE 1 A	54.09	45.03										99.12	Pyrite
2013-D90	SITE 1 B	53.76	45.81										99.58	Pyrite
2013-D90	SITE 1 C	53.20	45.23					1.24					99.67	As-Pyrite
2013-D90	SITE 1 D	53.27	45.21					0.78					99.26	As-Pyrite
2013-D90	SITE 1 E	53.91	45.43										99.33	Pyrite
2013-D90	SITE 1 F	53.96	46.22					0.50					100.68	As-Pyrite
2013-D90	SITE 1 G	54.45	45.57										100.02	Pyrite
2013-D90	SITE 1 H	22.08	35.01					42.47					99.55	Arsenopyrite
2013-D90	SITE 1 I	54.56	45.91										100.47	Pyrite
2013-D90	SITE 1 J	21.25	34.73					42.17					98.15	Arsenopyrite
2013-D90	SITE 2 A	54.02	45.52										99.54	Pyrite
2013-D90	SITE 2 B	53.16	45.33					0.94					99.43	As-Pyrite
2013-D90	SITE 2 C	53.59	45.43					1.61					100.63	As-Pyrite
2013-D90	SITE 2 D	54.63	46.05										100.68	Pyrite
2013-D90	SITE 2 E	53.85	45.92					1.46					101.23	As-Pyrite
2013-D90	SITE 2 F	54.26	45.81					1.42					101.49	As-Pyrite
2013-D90	SITE 2 G	54.74	46.04										100.78	Pyrite
2013-D90	SITE 2 I	21.10	33.92					43.10					98.12	Arsenopyrite
2013-D90	SITE 2 J	20.05	33.16					42.61					95.82	Arsenopyrite
2013-D90	SITE 2 K	21.40	32.99					41.79					96.19	Arsenopyrite
2013-D90	SITE 2 L	53.73	45.34										99.06	Pyrite

Table 13: 2013-D92

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D92	d92 site 1 b	52.22	44.75					1.45					98.41	As-Pyrite
2013-D92	d92 site 1 a	54.10	45.60										99.69	Pyrite
2013-D92	d92 site 1 e	22.15	36.50					44.83					103.48	Arsenopyrite
2013-D92	d92 site 1 f	22.04	36.50					43.28					101.82	Arsenopyrite
2013-D92	d92 site 1 h	22.67	37.18					44.34					104.20	Arsenopyrite
2013-D92	d92 site 2 a	55.30	46.69										101.99	Pyrite
2013-D92	d92 site 2 b	55.31	47.64					1.44					104.39	As-Pyrite
2013-D92	d9 site 2 c	22.52	36.48					45.65					104.65	Arsenopyrite
2013-D92	d92 site 2 d	22.43	36.80					45.00					104.22	Arsenopyrite
2013-D92	d92 site 2 e	22.25	36.21					45.32					103.78	Arsenopyrite
2013-D92	d92 site 2 f	22.98	37.14					44.32					104.45	Arsenopyrite
2013-D92	d92 site 2 g	23.19	36.52					43.87					103.58	Arsenopyrite
2013-D92	d92 site 3 a	41.29	60.56										101.85	Pyrite
2013-D92	d92 site 3 b	41.14	60.43										101.58	Pyrite
2013-D92	d92 site 3 c	54.86	46.76					0.81					102.43	As-Pyrite
2013-D92	d92 site 3 d	55.56	46.85										102.41	Pyrite
2013-D92	d92 site 3 e	55.32	46.65					0.75					102.72	As-Pyrite
2013-D92	d92 site 3 f	41.24	60.67										101.90	Pyrite
2013-D92	d92 site 3 g	55.56	46.96										102.53	Pyrite
2013-D92	d92 site 3 h	41.30	60.26										101.56	Pyrite

Table 14: Sample 2013-D96

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D96	SITE 1 A	53.89	45.39										99.27	Pyrite
2013-D96	SITE 1 B	53.15	45.61					1.33					100.09	As-Pyrite
2013-D96	SITE 1 C	54.34	46.11										100.45	Pyrite
2013-D96	SITE 1 D	55.05	46.00										101.05	Pyrite
2013-D96	SITE 1 E	53.18	44.93					1.75					99.87	As-Pyrite
2013-D96	SITE 1 F	54.23	45.71										99.94	Pyrite
2013-D96	SITE 1 G	52.50	44.65					2.14					99.29	As-Pyrite
2013-D96	SITE 1 H	54.26	45.66										99.92	Pyrite
2013-D96	SITE 1 I	21.72	34.65					41.56					97.93	Arsenopyrite
2013-D96	SITE 1 J	21.27	34.20					41.57					97.04	Arsenopyrite
2013-D96	SITE 1 K	21.30	34.44					42.58					98.33	Arsenopyrite
2013-D96	SITE 1 L	23.22	35.02					39.03					97.27	Arsenopyrite
2013-D96	SITE 1 M	22.50	35.02					39.16					96.68	Arsenopyrite
2013-D96	SITE 1 N	22.71	35.31					38.74					96.76	Arsenopyrite
2013-D96	SITE 1 O	21.53	34.87					41.30					97.70	Arsenopyrite
2013-D96	SITE 1 P	22.00	35.15					41.14					98.29	Arsenopyrite
2013-D96	SITE 1 Q	21.94	35.09					41.45					98.48	Arsenopyrite
2013-D96	SITE 1 R	22.35	34.79					40.72					97.86	Arsenopyrite
2013-D96	SITE 2 A	54.93	45.87										100.80	Pyrite
2013-D96	SITE 2 B	54.78	46.31										101.09	Pyrite
2013-D96	SITE 2 C	54.36	45.50										99.86	Pyrite
2013-D96	SITE 2 D	54.98	45.88										100.86	Pyrite

Table 14: Sample 2013-D96 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D96	SITE 2 E	54.41	45.44										99.85	Pyrite
2013-D96	SITE 2 F	52.64	45.07					1.93					99.65	As-Pyrite
2013-D96	SITE 2 F2	54.87	46.05										100.92	Pyrite
2013-D96	SITE 2 G	21.60	34.15					44.84					100.58	Arsenopyrite
2013-D96	SITE 2 H	21.36	34.70					44.17					100.23	Arsenopyrite
2013-D96	SITE 2 I	21.92	35.16					43.15					100.23	Arsenopyrite
2013-D96	SITE 2 J	22.21	35.47					42.68					100.36	Arsenopyrite
2013-D96	SITE 2 K	21.84	34.79					42.77					99.41	Arsenopyrite
2013-D96	SITE 2 P	35.64	30.18			33.88							99.70	Chalcopyrite
2013-D96	SITE 3 A	52.53	44.79					1.78					99.10	As-Pyrite
2013-D96	SITE 3 B	53.88	44.75										98.63	Pyrite
2013-D96	SITE 3 C	54.04	45.95										99.99	Pyrite
2013-D96	SITE 3 D	21.52	34.08					43.43					99.03	Arsenopyrite
2013-D96	SITE 3 F	22.54	34.86					41.83					99.22	As-Pyrite
2013-D96	SITE 3 G	35.41	29.39			33.81							98.61	Chalcopyrite
2013-D96	SITE 3 H	20.64	34.50					40.32					95.46	Arsenopyrite
2013-D96	SITE 3 I	21.39	34.28					40.12					95.80	Arsenopyrite
2013-D96	SITE 3 J	54.36	44.62										98.98	Pyrite
2013-D96	SITE 3 K	22.16	34.68					41.89					98.72	Arsenopyrite
2013-D96	SITE 3 L	21.17	33.88					39.76					94.81	Arsenopyrite

Table 15: Sample 2013-D97

Sample	Analysis	S	Fe	Co	Ni	Cu Elemental %	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
2013-D97	Spectrum 2	55.01	46.29										101.31	Pyrite
2013-D97	Spectrum 6	21.46	35.18					43.91					100.55	Arsenopyrite
2013-D97	Spectrum 8	53.47	45.46			1.80							100.73	Cu-Pyrite
2013-D97	Spectrum 33	20.69	35.91					41.08					97.67	Arsenopyrite
2013-D97	Spectrum 37	21.33	35.76					41.21					98.30	Arsenopyrite
2013-D97	Spectrum 38	21.01	36.07					40.29					97.37	Arsenopyrite
2013-D97	Spectrum 40	27.17	5.63			37.24	3.86				30.89		104.78	tenantite
2013-D97	Spectrum 42	22.23	36.09					43.89					102.21	Arsenopyrite
2013-D97	Spectrum 56	54.48	46.05										100.53	Pyrite
2013-D97	Spectrum 57	54.82	46.23										101.05	Pyrite

Table 16: Sample 2013-D102

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D102	SITE 1 A	53.73	45.15										98.88	Pyrite
2013-D102	SITE 1 B	53.35	45.64					1.11					100.09	As-Pyrite
2013-D102	SITE 1 C	54.63	45.95										100.58	Pyrite
2013-D102	SITE 1 D	52.92	45.31					1.91					100.14	As-Pyrite
2013-D102	SITE 1 E	53.13	45.10					1.98					100.22	As-Pyrite
2013-D102	SITE 1 F	54.87	45.68										100.55	Pyrite
2013-D102	SITE 1 G	35.67	30.26			33.76							99.69	Chalcopyrite
2013-D102	SITE 1 I	21.92	34.81					41.14					97.87	Arsenopyrite
2013-D102	SITE 1 J	21.74	34.86					40.50					97.11	Arsenopyrite
2013-D102	SITE 1 K	23.69	35.45					40.40					99.55	Arsenopyrite
2013-D102	SITE 2 A	52.76	44.90					2.16					99.83	As-Pyrite
2013-D102	SITE 1 B	53.46	45.69										99.14	Pyrite
2013-D102	SITE 2 C	54.25	46.06										100.30	Pyrite
2013-D102	SITE 2 C2	53.22	46.34					1.17					100.74	As-Pyrite
2013-D102	SITE 2 D	53.10	45.02										98.12	Pyrite
2013-D102	SITE 2 E	53.23	44.93										98.16	Pyrite
2013-D102	SITE 2 G	36.26	30.68			33.68							100.62	Chalcopyrite
2013-D102	SITE 2 H	24.76	5.09			37.69	3.08	2.47			26.64		99.73	tenantite
2013-D102	SITE 2 J	26.55	6.64			38.54	0.95	3.16			26.07		101.91	tenantite
2013-D102	SITE 3 A	53.88	46.06					2.46					102.39	As-Pyrite
2013-D102	SITE 3 B	54.74	45.98										100.72	Pyrite
2013-D102	SITE 3 C	55.32	46.49										101.81	Pyrite

Table 16: Sample 2013-D102 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D102	SITE 3 D	55.21	46.39										101.60	Pyrite
2013-D102	SITE 3 E	55.16	45.96										101.12	Pyrite
2013-D102	SITE 3 F	54.40	46.34					0.62					101.36	As-Pyrite
2013-D102	SITE 3 G	22.19	35.42					42.35					99.95	Arsenopyrite
2013-D102	SITE 3 H	21.78	35.34					44.09					101.21	Arsenopyrite
2013-D102	SITE 3 I	55.06	46.88										101.93	Pyrite
2013-D102	SITE 3 J	22.02	35.44					43.06					100.52	Arsenopyrite
2013-D102	SITE 3 K	21.99	35.92					41.95					99.85	Arsenopyrite
2013-D102	SITE 3 L	22.21	35.30					41.74					99.24	Arsenopyrite
2013-D102	SITE 3 M	22.91	35.74					41.17					99.81	Arsenopyrite
2013-D102	SITE 3 N	54.36	45.86										100.21	Pyrite

Table 17: Sample 2013-D103

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D103	site 1 a	54.10	45.46										99.56	Pyrite
2013-D103	site 1 c	53.99	45.58										99.58	Pyrite
2013-D103	site 1 d	54.03	45.55					1.51					101.09	As-Pyrite
2013-D103	site 1 e	54.34	45.50										99.84	Pyrite
2013-D103	site 1 f	53.51	45.15					1.02					99.68	As-Pyrite
2013-D103	site 1 h	54.29	45.75										100.04	Pyrite
2013-D103	site 1 i	54.09	45.26										99.34	Pyrite
2013-D103	site 1 l	54.07	44.97										99.04	Pyrite
2013-D103	site 1 n	54.16	45.73										99.89	Pyrite
2013-D103	site 1 o	54.26	45.44										99.70	Pyrite
2013-D103	site 1 p	42.22	15.78										104.51	Pyrite
2013-D103	site 1 q	52.96	44.61					1.18					98.74	As-Pyrite
2013-D103	site 1 r	54.13	45.87										99.99	Pyrite
2013-D103	site 1 s	54.22	45.27										99.49	Pyrite
2013-D103	site 2 a	54.21	45.54										99.75	Pyrite
2013-D103	site 2 b	54.41	45.38										99.79	Pyrite
2013-D103	site 2 c	53.64	45.03					0.49					99.16	As-Pyrite
2013-D103	site 2 d	54.12	45.38										99.50	Pyrite
2013-D103	site 2 f	53.02	44.97					0.83					98.83	As-Pyrite
2013-D103	site 2 f2	54.29	45.67										99.96	Pyrite
2013-D103	site 2 h	54.08	45.62										99.69	Pyrite
2013-D103	site 2 i	54.08	45.29										99.37	Pyrite
2013-D103	site 3 l	54.14	45.45										99.59	Pyrite
2013-D103	site 2 m	53.77	45.42										99.19	Pyrite
2013-D103	site 2 n	53.77	45.06										98.84	Pyrite

Table 17: Sample 2013-D103 continued

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
2013-D103	site 2 o	54.02	45.04										99.06	Pyrite
2013-D103	site 2 p	53.23	44.70					1.07					99.00	As-Pyrite
2013-D103	site 2 r	53.62	45.37										99.00	Pyrite
2013-D103	site 2 q	53.92	45.62										99.54	Pyrite
2013-D103	site 2 s	53.95	45.41										99.36	Pyrite
2013-D103	site 2 t	53.89	45.21										99.11	Pyrite
2013-D103	site 2 u	54.73	45.50										100.22	Pyrite
2013-D103	site 1 v	53.79	45.99										99.78	Pyrite
2013-D103	site 2 w	54.47	45.74										100.21	Pyrite
2013-D103	site 4 a	54.48	45.59										100.07	Pyrite
2013-D103	site 4 a2	53.64	45.65					0.49					99.79	As-Pyrite
2013-D103	site 4 d	52.94	44.93					0.69					98.56	As-Pyrite
2013-D103	site 4 f	54.35	45.09										99.45	Pyrite
2013-D103	site 4 g	38.47	32.01			28.89							99.36	Chalcopyrite
2013-D103	site 4 h	54.05	45.14										99.19	Pyrite
2013-D103	site 4 i	54.28	45.41										99.69	Pyrite
2013-D103	site 4 k	54.38	45.79										100.17	Pyrite
2013-D103	site 4 l	54.07	45.18										99.25	Pyrite
2013-D103	site 4 m	53.99	45.36										99.35	Pyrite
2013-D103	site 4 n	39.88	34.11			26.04							100.04	Chalcopyrite
2013-D103	site 4 p	54.08	45.28										99.35	Pyrite

Table 18: Sample KCD 25

Sample	Analysis	S	Fe	Co	Ni	Cu	Zn	As	Sr	Ag	Sb	Au	Total	Mineral
						Elemental %								
KCD25	KCD 25 A	54.55	48.11										102.66	Pyrite
KCD25	KCD 25 C	53.41	47.63										101.05	Pyrite
KCD25	KCD 25 H	53.37	47.22										100.59	Pyrite
KCD25	KCD 25 I	53.09	46.31										99.40	Pyrite

Appendix 5b: Mengu deposit- Gold particle EDS data

Table 1: Sample MH001B

Sample	Analysis	S	Fe	Cu	As	Ag	Au	Total	Mineral
				Element %					
MH001B	MH001B-E					3.28	96.79	100.07	gold
MH001B	MH001B-I					4.08	95.18	99.26	gold
MH001B	MH001B-Q					2.36	98.92	101.28	gold
MH001B	MH001B-AA					2.86	97.88	100.73	gold
MH001B	MH001B-AI						99.51	99.51	gold
MH001B	MH001B-AM					4.30	95.86	100.17	gold
MH001B	MH001B-AO						99.82	99.82	gold
MH001B	MH001B-AS					2.03	99.40	101.43	gold
MH001B	MH001B-AV					4.60	100.97	105.57	gold
MH001B	MH001B-AX		3.17			2.68	94.73	100.57	gold
MH001B	MH001B-AZ					2.70	97.54	100.24	gold
MH001B	MH001B-BA					2.64	97.02	99.66	gold
MH001B	MH001B-BB					4.25	96.00	100.25	gold
MH001B	MH001B-BD		3.48			2.51	94.29	100.29	gold
MH001B	MH001B-BI		3.03			2.74	95.55	101.32	gold
MH001B	MH001B-BL					2.82	96.38	99.20	gold
MH001B	MH001B-BN		4.10			3.91	93.05	101.06	gold
MH001B	MH001B-BP					2.72	96.58	99.30	gold
MH001B	MH001B-BX					3.61	96.50	100.11	gold
MH001B	MH001B-BZ					3.33	98.14	101.46	gold
MH001B	MH001B-CC					2.87	96.38	99.26	gold
MH001B	MH001B-CE		2.46			3.04	95.34	100.84	gold
MH001B	MH001B-CG		9.47			2.17	66.27	77.91	gold
MH001B	MH001B-CK		4.80			2.67	92.80	100.27	gold
MH001B	MH001B-CM					2.67	98.52	101.19	gold
MH001B	MH001B-CO		7.55			2.33	72.23	82.11	gold
MH001B	MH001B-CQ		1.91			4.12	92.98	99.00	gold

Table 2: Sample MH009B

Sample	Analysis	S	Fe	Cu Element %	As	Ag	Au	Total	Mineral
MH009B	MH009B-h	34.07	20.82		0.71	1.67	51.83	109.10	au/py
MH009B	MH009B-l	28.90	16.88			1.69	62.90	110.38	gold
MH009B	MH009B-p		4.42			5.87	91.82	102.11	gold
MH009B	MH009B-r		4.14			5.16	89.88	99.18	gold
MH009B	MH009B-bg					4.29	95.33	99.62	gold
MH009B	MH009B-bz		6.30			5.92	89.18	101.41	gold
MH009B	MH009B-cb					4.53	95.81	100.34	gold
MH009B	MH009B-cd					2.96	98.89	101.85	gold
MH009B	Spectrum 75		3.38			2.83	101.26	107.47	gold
MH009B	MH009B-cf		5.09			7.54	87.52	100.15	gold
MH009B	MH009B-cj					2.63	95.24	97.87	gold
MH009B	MH009B-cl		9.81			2.38	80.81	93.01	gold
MH009B	MH009B-co		5.69			2.08	92.63	100.40	gold
MH009B	MH009B-cq					2.78	96.33	99.10	gold
MH009B	MH009B-cu					3.33	99.43	102.76	gold
MH009B	MH009B-cw					4.22	98.34	102.55	gold
MH009B	MH009B-cz	26.52	14.77	0.84			70.96	113.10	gold
MH009B	MH009B-dd		3.74			4.64	90.62	99.01	gold
MH009B	MH009B-dk		4.77			2.64	90.51	97.92	gold
MH009B	MH009B-dn					4.53	95.58	100.12	gold
MH009B	MH009B-dp					2.84	98.14	100.98	gold
MH009B	MH009B-dr		2.73			2.83	93.82	99.39	gold
MH009B	MH009B-dw					5.11	99.13	104.24	gold
MH009B	MH009B-dx		8.04			4.21	75.47	87.72	gold
MH009B	MH009B-dz		1.21			4.97	93.09	99.27	gold

Table 3: Sample MH009B continued

Sample	Analysis	S	Fe	Cu	As	Ag	Au	Total	Mineral
				Element %					
MH009B	MH009B-eb					2.81	98.28	101.09	gold
MH009B	MH009B-ed					3.11	98.03	101.14	gold
MH009B	MH009B-ef					3.62	96.62	100.25	gold
MH009B	MH009B-eh					3.81	97.14	100.95	gold
MH009B	MH009B-el					3.43	97.69	101.12	gold
MH009B	MH009B-es					2.16	96.85	99.01	gold
MH009B	MH009B-eu		2.23			2.88	95.85	100.95	gold
MH009B	MH009B-ew					2.63	97.52	100.15	gold
MH009B	MH009B-fc		0.80			4.55	93.28	98.63	gold

Table 4: Sample PB12-M03

Sample	Analysis	S	Fe	Cu	As	Ag	Au	Total	Mineral
				Element %					
PB12-M03	MO3 E	44.12	28.65				35.63	108.40	gold/py
PB12-M03	MO3-H					7.11	94.45	101.57	gold
PB12-M03	MO3-L		1.69			7.87	91.55	101.11	gold
PB12-M03	MO3-N		2.12			7.72	90.87	100.71	gold
PB12-M03	MO3-O		3.01			6.94	91.42	101.37	gold
PB12-M03	MO3-P		4.59			5.41	88.78	98.78	gold
PB12-M03	MO3-Q	43.77	27.59				46.35	117.71	gold
PB12-M03	MO3-R		4.02			5.26	94.14	103.42	gold
PB12-M03	MO3-T		5.33			4.95	88.61	98.89	gold
PB12-M03	MO3-X		1.86			5.71	92.44	100.01	gold
PB12-M03	MO3-Y		1.47			4.79	93.63	99.89	gold
PB12-M03	MO3-AA		3.70			5.76	91.25	100.70	gold
PB12-M03	MO3-AC		3.44			5.66	92.32	101.43	gold
PB12-M03	MO3-AH		2.51			8.71	88.55	99.77	gold
PB12-M03	MO3-AM		3.42			6.84	90.57	100.83	gold
PB12-M03	MO3-AN		2.06			6.13	90.57	98.76	gold
PB12-M03	MO3-AO		3.33			6.64	91.02	100.98	gold
PB12-M03	MO3-AP		3.34			5.93	89.96	99.22	gold
PB12-M03	MO3-AR		5.28			5.46	88.47	99.21	gold
PB12-M03	MO3-AS		4.05			5.70	89.91	99.66	gold
PB12-M03	MO3-AT		3.39			5.56	90.96	99.91	gold
PB12-M03	MO3-AY		5.25			7.34	84.47	97.05	gold
PB12-M03	M03-BB		4.29			6.59	90.12	101.00	gold
PB12-M03	M03-BC		5.36			7.14	84.27	96.76	gold
PB12-M03	MO3-BD		9.83			4.57	61.18	75.58	gold
PB12-M03	MO3-BN		3.68			6.63	89.05	99.36	gold
PB12-M03	MO3-BP		4.71			6.29	85.78	96.79	gold

Table 4: Sample PB12-M03 continued

Sample	Analysis	S	Fe	Cu	As	Ag	Au	Total	Mineral
				Element %					
PB12-M03	MO3-BU		4.25				95.32	99.56	gold
PB12-M03	MO3-BZ	22.15	13.39			5.13	66.26	106.93	gold
PB12-M03	MO3-CC		3.54			6.20	91.32	101.07	gold
PB12-M03	MO3-CH		5.33	1.15		7.24	88.24	101.98	gold
PB12-M03	MO3-CL		2.95			6.97	91.48	101.40	gold
PB12-M03	MO3-CV	27.63	17.12			4.50	65.02	114.26	gold
PB12-M03	MO3-DK	31.73	20.88			4.21	52.44	109.26	gold
PB12-M03	MO3-DO		5.94			3.91	85.06	94.91	gold
PB12-M03	MO3-DR	32.02	19.49			3.93	50.91	106.35	gold
PB12-M03	MO3-DV	31.41	19.27			3.96	53.18	107.82	gold
PB12-M03	MO3-DZ		3.55			5.92	89.77	99.24	gold
PB12-M03	MO3-EB		4.16			7.32	90.43	101.92	gold
PB12-M03	MO3-EJ		4.50			7.29	89.42	101.21	gold
PB12-M03	MO3-EL		4.03			6.87	90.03	100.92	gold
PB12-M03	MO3-EN	28.31	18.89			4.14	52.73	104.07	gold
PB12-M03	MO3-ES		4.29			7.68	89.99	101.96	gold
PB12-M03	MO3-EX	26.84	15.79	1.25		4.75	57.43	106.06	gold
PB12-M03	MO3-EZ		6.13			5.04	74.08	85.97	gold
PB12-M03	MO3-FD		1.95			9.06	88.19	99.20	gold
PB12-M03	MO3-FN		7.60			6.44	72.35	86.38	gold

Table 5: Sample PB12-M06

Sample	Analysis	S	Fe	Cu	As	Ag	Au	Total	Mineral
				Element %					
PB12-M06	M06 A		1.20			3.87	95.64	100.72	gold
PB12-M06	M06 B	36.29	25.92			2.31	49.14	113.65	gold
PB12-M06	M06 E					4.78	95.38	100.16	gold
PB12-M06	M06 G					4.39	97.31	101.70	gold
PB12-M06	M06 I					4.56	94.89	99.45	gold
PB12-M06	M06 K		3.69			6.31	90.31	100.31	gold
PB12-M06	M06 S					3.94	97.55	101.49	gold
PB12-M06	M06 W					4.05	90.20	94.25	gold

Appendix 5b: Mengu deposit- Host lithologies and alteration EDS data

Table 1: Sample PB12-M02

Sample	Analysis	SiO_2 wt%	$A_{l2}O_3$ wt%	FeO wt%	MnO wt%	MgO wt%	Total	Min Name
PB12-M02	SITE 1 A	105.35					105.35	Quartz
PB12-M02	SITE 1 B	105.61					105.61	Quartz
PB12-M02	SITE 1 C	23.18	21.65	39.76		3.93	88.51	Chlorite
PB12-M02	SITE 1 D			52.79	0.28	4.55	58.06	siderite
PB12-M02	SITE 1 E			25.46		4.70	56.46	Ankerite
PB12-M02	SITE 1 F			25.40		3.80	55.56	Ankerite
PB12-M02	SITE 2 A	105.88					105.88	Quartz
PB12-M02	SITE 2 B	105.51					105.51	Quartz
PB12-M02	SITE 2 C	22.98	20.37	40.50		4.03	87.88	Chlorite
PB12-M02	SITE 2 D			53.30		4.38	58.17	siderite
PB12-M02	SITE 2 E			25.38		4.93	56.58	Ankeite
PB12-M02	SITE 2 F			25.19	0.35	4.67	56.48	Ankerite
PB12-M02	SITE 2 G	24.36	22.17	40.66		4.08	91.27	Chlorite
PB12-M02	SITE 2 H	24.23	21.56	40.21		4.18	90.18	Chlorite
PB12-M02	SITE 3 A	106.31					106.31	Quartz
PB12-M02	SITE 3 B	105.89					105.89	Quartz
PB12-M02	SITE 3 C	24.12	20.66	40.77		4.29	89.84	Chlorite
PB12-M02	SITE 3 D	23.87	20.74	40.79		4.21	89.61	Chlorite
PB12-M02	SITE 3 E			25.22		5.07	56.24	Ankerite
PB12-M02	SITE 3 F			24.47	0.41	5.37	56.83	Ankerite
PB12-M02	SITE 3 G			52.55	0.53	5.25	58.91	siderite
PB12-M02	SITE 3 H	22.40	20.12	40.15		3.64	86.30	Chlorite
PB12-M02	SITE 4 A	105.82					105.82	Quartz
PB12-M02	SITE 4 B	105.80					105.80	Quartz
PB12-M02	SITE 4 C			53.63		4.08	58.07	siderite
PB12-M02	SITE 4 D			54.37		3.92	58.68	siderite
PB12-M02	SITE 4 E			24.74	0.34	4.88	56.37	Ankerite
PB12-M02	SITE 4 F			25.07	0.40	5.05	56.81	Ankerite
PB12-M02	SITE 4 G	23.63	20.55	40.88		4.13	89.20	Chlorite
PB12-M02	SITE 4 H	23.44	19.89	40.73		4.25	88.32	Chlorite
PB12-M02	SITE 5 A	104.93					104.93	Quartz
PB12-M02	SITE 5 B	104.71					104.71	Quartz
PB12-M02	SITE 5 C			53.73		3.40	57.68	siderite
PB12-M02	SITE 5 D			54.65		3.03	58.20	siderite
PB12-M02	SITE 5 E	23.81	20.51	40.30		4.16	88.78	Chlorite
PB12-M02	SITE 5 F	23.07	20.34	40.84		3.89	88.14	Chlorite

Table 2: Sample PB12-M06

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	$A_{l2}O_3$ wt%	FeO wt%	MnO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	OF_2 wt%	P_2O_5 wt%	Total	Min Name
PB12-M06	site 1 a	105.06											105.06	Quartz
PB12-M06	site 1b				24.72		4.70	26.30					55.72	Ankerite
PB12-M06	site 1 c				51.18		4.85	0.47					56.50	siderite
PB12-M06	site 1 d	105.65											105.65	Quartz
PB12-M06	site 1 e				24.71		4.88	26.16					55.74	Ankerite
PB12-M06	site 1 f				51.82		5.29	0.42					57.53	siderite
PB12-M06	site 1 g	47.48		32.93	3.24		0.53		9.04	1.02			94.24	Al-celadonite
PB12-M06	site 2 a	105.10											105.10	Quartz
PB12-M06	Site 2 b				52.43	0.32	3.75	0.78					57.29	siderite
PB12-M06	site 2 c	47.34		34.10	2.70		0.39		7.44	2.33			94.30	Al-celadonite
PB12-M06	site 2 d	105.51											105.51	Quartz
PB12-M06	site 2 e				54.51		2.37	0.47					57.35	siderite
PB12-M06	site 2 f				53.36		4.08	0.63					58.07	siderite
PB12-M06	site 3 a	104.92											104.92	Quartz
PB12-M06	site 3 b				52.70	0.31	3.98	0.50					57.50	siderite
PB12-M06	site 3 c	105.71											105.71	Quartz
PB12-M06	site 3 d				53.10	0.38	3.52	0.63					57.63	siderite
PB12-M06	site 3 e	105.21											105.21	Quartz
PB12-M06	site 3 f				52.44	0.30	4.27	0.56					57.57	siderite
PB12-M06	site 4 a	105.53											105.53	Quartz
PB12-M06	site 4 b				25.33		4.27	25.83					55.44	Ankerite
PB12-M06	site 4 c				25.12		5.05	26.07					56.24	Ankerite
PB12-M06	site 4 d	104.93											104.93	Quartz
PB12-M06	site 4 e				24.93		5.75	25.90					56.59	Ankerite
PB12-M06	site 4 f				51.20	0.38	5.51	0.58					57.67	Ankerite
PB12-M06	site 4 g							54.56			0.00	40.45	95.01	siderite
PB12-M06	site 4 h	47.10		33.08	3.68				8.73	1.40			93.99	Al-celadonite
PB12-M06	site 5 a	105.10											105.10	Quartz
PB12-M06	site 5 b				53.04	0.29	3.97	0.41					57.72	siderite
PB12-M06	site 5 c	105.82											105.82	Quartz
PB12-M06	site 5 d				52.14		4.28	0.41					56.82	Ankerite
PB12-M06	site 5 e	105.77											105.77	Quartz
PB12-M06	site 5 f				54.39		2.57	0.29					57.26	Ankerite
PB12-M06	site 6 a	105.28											105.28	Quartz
PB12-M06	site 6 b				24.39	0.24	4.83	26.32					55.77	Ankerite
PB12-M06	site 6 c				23.89	0.27	5.74	26.26					56.16	Ankerite
PB12-M06	site 6 d	105.16											105.16	Quartz
PB12-M06	site 6 e				52.24		4.31	0.45					57.00	siderite
PB12-M06	site 6 f				24.64		4.64	26.27					55.56	Ankerite
PB12-M06	site 6 g	105.63											105.63	Quartz
PB12-M06	site 6 h				52.69		4.48	0.48					57.64	siderite

Table 3: Sample 2013-M18

Sample	Analysis	SiO_2 wt%	TiO_2 wt%	$A_{l2}O_3$ wt%	FeO wt%	MgO wt%	CaO wt%	K_2O wt%	Na_2O wt%	V_2O_3 wt%	Total	Min Name
2013-M18	SITE 1 A	104.20									104.20	Quartz
2013-M18	SITE 1 B	103.63									103.63	Quartz
2013-M18	SITE 1 C				53.91	3.72	0.49				58.13	siderite
2013-M18	SITE 1 D				52.41	4.16	0.52				57.09	siderite
2013-M18	SITE 1 E	47.74		34.99	2.26			9.06	1.34		95.39	Al-celadonite
2013-M18	SITE 1 F	45.95		33.94	2.44			8.43	1.73		92.49	Al-celadonite
2013-M18	SITE 2 A	103.84									103.84	Quartz
2013-M18	SITE 2 B	105.70									105.70	Quartz
2013-M18	SITE 2 C				54.15	4.00	0.28				58.43	siderite
2013-M18	SITE 2 D				53.42	4.18	0.49				58.08	siderite
2013-M18	SITE 2 E	47.31	0.30	34.22	3.34			9.02	1.10		95.30	Al-celadonite
2013-M18	SITE 2 F	47.26		34.57	2.92	0.33		9.01	1.23		95.32	Al-celadonite
2013-M18	SITE 2-5 A				25.21	4.74	26.57				56.52	Ankerite
2013-M18	SITE 2-5 B				25.43	4.83	26.48				56.74	Ankerite
2013-M18	SITE 2-5 C				55.10	3.52	0.34				58.97	siderite
2013-M18	SITE 2-5 D				53.77	4.10	0.86				58.72	siderite
2013-M18	SITE 2-5 E	105.37			0.56						105.93	Quartz
2013-M18	SITE 2-5 F	105.98			0.82						106.80	Quartz
2013-M18	SITE 2-5 G		15.89		56.85	1.72	8.54			0.65	83.66	Cafetite?
2013-M18	SITE 2-5 H	0.79	2.32		82.58	0.80					86.49	???
2013-M18	SITE 3 A	104.63									104.63	Quartz
2013-M18	SITE 3 B	104.75									104.75	Quartz
2013-M18	SITE 3 C				51.95	4.71	0.53				57.18	siderite
2013-M18	SITE 3 D				53.41	4.05	0.39				57.85	siderite
2013-M18	SITE 3 E	43.18		32.38	2.15			8.40	1.29		87.39	Al-celadonite
2013-M18	SITE 3 F	46.47		34.67	2.25			8.53	1.67		93.59	Al-celadonite
2013-M18	SITE 4 A				53.86	3.93	0.50				58.29	siderite
2013-M18	SITE 4 B	0.43			52.29	2.48	0.57				55.78	siderite
2013-M18	SITE 4 C				54.02	3.94	0.43				58.39	siderite
2013-M18	SITE 4 D				54.14	4.12	0.49				58.76	siderite
2013-M18	SITE 4 E				24.57	5.53	26.49				56.60	Ankerite
2013-M18	SITE 4 F	106.14									106.14	Quartz

Appendix 5b: Mengu deposit- Iron Sulphide EDS data

Table 1: Sample MH001B

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
MH001B	MH001B-A	53.09	46.58					99.67	Pyrite
MH001B	MH001B-D	52.47	46.34					98.80	Pyrite
MH001B	MH001B-H	52.51	46.38					98.89	Pyrite
MH001B	MH001B-J	22.82	35.91			39.99		98.72	Arsenopyrite
MH001B	MH001B-L	52.78	46.86					99.64	Pyrite
MH001B	MH001B-M	51.87	46.62			1.20		99.69	As-Pyrite
MH001B	MH001B-N	28.43	8.49	43.72		19.95		100.59	Chalcopyrite
MH001B	MH001B-O	21.88	35.46			40.52		97.87	Arsenopyrite
MH001B	MH001B-R	52.74	46.89			1.72		101.35	As-Pyrite
MH001B	MH001B-R2	53.48	47.08					100.55	Pyrite
MH001B	MH001B-T	40.31	39.97			28.02		108.30	Arsenopyrite
MH001B	MH001B-U	24.36	35.93			40.23		100.52	Arsenopyrite
MH001B	MH001B-V	22.06	35.29			41.02		98.37	Arsenopyrite
MH001B	MH001B-W	28.74	9.81	42.39		19.26		100.21	Tenantite
MH001B	MH001B-X	26.56	36.34	0.50		38.09		101.49	co-Arsenopyrite
MH001B	MH001B-Z	52.84	46.76			0.46		100.06	As-Pyrite
MH001B	MH001B-AB	52.44	46.84			1.84		101.12	As-Pyrite
MH001B	MH001B-AC	28.43	9.71	42.81		18.89		99.83	Tenantite
MH001B	MH001B-AD	28.50	9.82	42.55		19.04		99.90	Tenantite
MH001B	MH001B-AE	29.59	10.05	42.10		18.81		100.56	Tenantite
MH001B	MH001B-AF	21.61	35.97			40.99		98.56	Arsenopyrite
MH001B	MH001B-AG	53.66	47.31					100.97	Pyrite
MH001B	MH001B-AH	53.65	47.43					101.09	Pyrite
MH001B	MH001B-AJ	29.68	9.98	41.18		18.75		99.59	Tenantite
MH001B	MH001B-AL	53.13	46.77					99.90	Pyrite
MH001B	MH001B-AN	51.75	46.61			2.43		100.80	Pyrite
MH001B	MH001B-AP	53.21	46.48					99.68	Pyrite
MH001B	MH001B-AR	52.71	46.66			1.23		100.59	As-Pyrite

Table 1: Sample MH001B continued

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
MH001B	MH001B-AT	54.03	47.12					101.15	Pyrite
MH001B	MH001-AW	52.97	46.07					99.04	Pyrite
MH001B	MH001B-AY	52.93	46.63					99.56	Pyrite
MH001B	MH001B-BC	53.60	47.34					100.93	Pyrite
MH001B	MH001B-BE	51.54	46.61			1.79		99.94	As-Pyrite
MH001B	MH001B-BH	53.04	46.81					99.86	Pyrite
MH001B	MH001B-BJ	53.08	47.02					100.10	Pyrite
MH001B	MH001B-BK	30.57	33.70	3.27		36.08		103.62	Arsenopyrite
MH001B	MH001B-Q1	51.77	45.99			1.41		99.17	As-Pyrite
MH001B	MH001B-Q3	51.58	46.15			0.66		98.40	As-Pyrite
MH001B	MH001B-Q6	54.27	46.88					101.14	Pyrite
MH001B	MH001-Q7	53.21	47.10					100.31	Pyrite
MH001B	MH001B-BM	53.87	47.27					101.14	Pyrite
MH001B	MH001B-BO	53.45	47.45					100.89	Pyrite
MH001B	MH001B-BQ	29.44	8.89	43.99		19.56		101.89	Tenantite
MH001B	MH001B-BR	52.32	47.09			1.19		100.59	As-Pyrite
MH001B	MH001B-BS	28.59	9.77	42.88		19.49		100.73	Tenantite
MH001B	MH001B-BT	27.44	8.68	40.26		13.62	7.74	97.73	Tenantite
MH001B	MH001B-BU	33.74	14.43	38.03		17.59		103.79	Tenantite
MH001B	MH001B-BW	53.83	47.27					101.09	Pyrite
MH001B	MH001B-BY	53.31	47.62					100.92	Pyrite
MH001B	MH001B-CA	25.34	30.36	7.80		36.14		99.63	Tenantite
MH001B	MH001B-CB	53.60	46.69					100.28	Pyrite
MH001B	MH001B-CD	53.14	46.21					99.35	Pyrite
MH001B	MH001B-CF	51.28	46.20			1.96		99.44	As-Pyrite
MH001B	MH001B-CH	51.39	46.25			1.41		99.04	As-Pyrite
MH001B	MH001B-CJ	52.02	46.59					98.61	Pyrite

Table 1: Sample MH001B continued

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
MH001B	MH001B-CL	51.72	46.17			1.28		99.17	As-Pyrite
MH001B	MH001B-CN	51.86	45.61			1.18		98.65	As-Pyrite
MH001B	MH001B-CP	52.29	46.35					98.64	Pyrite

Table 2: Sample MH009B

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
MH009B	MH009B-b	29.26	9.91	42.42		19.44		101.03	Tenantite
MH009B	MH009B-C	28.14	9.94	41.97		19.93		99.98	Tenantite
MH009B	MH009B-d	50.70	46.18			2.15		99.03	As-Pyrite
MH009B	MH009B-g	52.93	47.96					100.89	Pyrite
MH009B	MH009B-k	51.43	46.10			1.31		98.84	As-Pyrite
MH009B	MH009B-m	52.80	46.73					99.53	Pyrite
MH009B	MH009B-o	53.55	46.84					100.39	Pyrite
MH009B	MH009B-q	53.20	46.33					99.53	Pyrite
MH009B	MH009B-s	51.36	46.49			1.16		99.01	As-Pyrite
MH009B	MH009B-t	28.10	10.12	42.21		18.94		99.37	Tenantite
MH009B	MH009B-u	52.72	46.82					99.55	Pyrite
MH009B	MH009B-w	52.31	46.81					99.11	Pyrite
MH009B	MH009B-y	27.43	11.27	35.62		5.03	19.99	99.34	tetrahedrite
MH009B	MH009B-ba	52.75	46.62			0.73		100.10	As-Pyrite
MH009B	MH009B-bc	28.19	9.67	42.55		18.78		99.20	Tenantite
MH009B	MH009B-bd	28.45	9.41	43.02		19.04		99.92	Tenantite
MH009B	MH009B-be	52.57	46.61					99.18	Pyrite
MH009B	MH009B-bf	22.97	35.29			40.37		98.63	Arsenopyrite
MH009B	MH009B-bh	53.29	46.57					99.86	Pyrite
MH009B	MH009B-bj	28.87	10.44	40.91		17.24	2.75	100.21	Tenantite
MH009B	Mh009B-bk	53.74	47.45					101.19	Pyrite
MH009B	MH009B-bm	24.99	36.62			39.01		100.62	Arsenopyrite
MH009B	MH009B-bn	53.23	47.72					100.96	Pyrite
MH009B	MH009B-bo	21.37	35.78			41.82		98.97	Arsenopyrite

Table 2: Sample MH009B continued

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
MH009B	MH009B-bp	34.86	17.96	33.52		17.15		103.49	Tenantite
MH009B	MH009B-bq	21.59	35.50			41.09		98.17	Arsenopyrite
MH009B	MH009B-br	22.02	36.12			42.11		100.25	Arsenopyrite
MH009B	MH009B-bs	28.58	9.88	42.35		19.54		100.35	Tenantite
MH009B	MH009B-bt	53.20	46.83					100.03	Pyrite
MH009B	MH009B-bu	21.31	35.90			41.03		98.25	Arsenopyrite
MH009B	Mh009B-bv	20.60	35.05			43.14		98.79	Arsenopyrite
MH009B	MH009B-bw	20.91	35.56			42.04		98.51	Arsenopyrite
MH009B	MH009B-by	53.22	46.88					100.10	Pyrite
MH009B	MH009B-ca	53.58	46.88					100.46	Pyrite
MH009B	MH009B-cc	53.64	47.00					100.64	Pyrite
MH009B	MH009B-ce	53.20	47.76					100.97	Pyrite
MH009B	MH009B-cg	53.60	47.38					100.98	Pyrite
MH009B	MH009B-ci	52.90	47.39					100.29	Pyrite
MH009B	MH009B-cn	52.48	46.62					99.10	Pyrite
MH009B	MH009B-cp	53.04	46.73					99.77	Pyrite
MH009B	MH009B-cr	52.72	45.86					98.57	Pyrite
MH009B	MH009B-ct	52.97	47.15					100.13	Pyrite
MH009B	MH009B-cv	53.41	47.47					100.88	Pyrite
MH009B	MH009B-cx	28.25	9.78	41.50		18.64	1.45	99.62	Tenantite
MH009B	MH009B-cy	53.28	46.93					100.22	Pyrite
MH009B	MH009B-da	30.06	11.36	40.72		17.59	1.71	101.44	Tenantite
MH009B	MH009B-db	22.54	35.27	0.84		41.23		99.88	Tenantite

Table 2: Sample MH009B continued

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
MH009B	MH009B-dc	53.31	46.78					100.09	Pyrite
MH009B	MH009B-de	53.01	47.25					100.27	Pyrite
MH009B	MH009B-df	53.07	46.65					99.72	Pyrite
MH009B	MH009B-dh	52.53	46.11					98.64	Pyrite
MH009B	MH009B-dj	50.01	45.02			1.27		96.29	As-Pyrite
MH009B	MH009B-dj2	51.14	46.14			1.25		98.53	As-Pyrite
MH009B	MH009B-dl	29.08	9.94	41.10		18.91		99.03	Arsenopyrite
MH009B	MH009B-dm	50.73	45.35			3.89		99.97	As-Pyrite
MH009B	MH009B-do	53.20	46.75					99.95	Pyrite
MH009B	MH009B-dq	52.75	47.22			1.47		101.44	As-Pyrite
MH009B	MH009B-dv	52.90	46.80					99.70	Pyrite
MH009B	MH009B-dy	51.89	47.10					98.99	Pyrite
MH009B	MH009B-ea	52.95	46.67					99.62	Pyrite
MH009B	MH009B-ec	53.11	47.29					100.41	Pyrite
MH009B	MH009B-ee	53.17	47.08					100.25	Pyrite
MH009B	MH009B-eg	52.57	46.45			1.04		100.06	Pyrite
MH009B	MH009B-ei	52.32	46.85					99.17	Pyrite
MH009B	MH009B-ek	52.23	46.01					98.24	Pyrite
MH009B	MH009B-em	53.01	46.69					99.70	Pyrite
MH009B	MH009B-ep	52.29	46.31					98.60	Pyrite
MH009B	MH009B-er	52.27	45.89			0.93		99.10	Pyrite

Table 2: Sample MH009B continued

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
MH009B	MH009B-et	53.19	46.16					99.35	Pyrite
MH009B	MH009B-ev	52.77	46.97					99.74	Pyrite
MH009B	M009B-ex	52.27	46.66			0.98		99.90	Pyrite
MH009B	MH009B-ez	49.74	45.44			3.58		98.76	Pyrite
MH009B	MH009B-fd	49.73	44.89			1.84		96.46	Pyrite
MH009B	MH009B-fe	52.00	46.17					98.17	Pyrite

Table 3: Sample PB12-M03

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
PB12-M03	MO3-A	34.80	30.77	34.50				100.07	Chalcopyrite
PB12-M03	MO3-B	54.00	47.45					101.45	Pyrite
PB12-M03	MO3-G	53.63	47.75					101.38	Pyrite
PB12-M03	MO3-J	53.53	47.25					100.77	Pyrite
PB12-M03	MO3-K	54.02	47.35					101.37	Pyrite
PB12-M03	MO3-U	53.30	46.44					99.74	Pyrite
PB12-M03	MO3-V	35.26	31.29	32.10				98.66	Chalcopyrite
PB12-M03	MO3-W	24.34	35.82			40.67		100.83	Arsenopyrite
PB12-M03	MO3-Z	52.80	46.06					98.86	Pyrite
PB12-M03	MO3-AD	52.54	46.29					98.83	Pyrite
PB12-M03	MO3-AF	52.61	46.24					98.85	Pyrite
PB12-M03	MO3-AG	50.88	45.68			2.05		98.61	As-Pyrite
PB12-M03	MO3-AJ	36.56	31.03	33.43				101.02	Chalcopyrite
PB12-M03	MO3-AK	51.92	46.43			0.59		98.95	As-Pyrite
PB12-M03	MO3-AL	52.82	45.92					98.74	Pyrite
PB12-M03	MO3-AU	34.56	31.13	32.34				98.03	Chalcopyrite
PB12-M03	MO3-AV	26.79	36.23			37.40		100.42	As-Pyrite
PB12-M03	MO3-AW	52.23	46.26					98.50	Pyrite
PB12-M03	MO3-AX	49.44	45.01			4.30		98.75	As-Pyrite
PB12-M03	MO3-BF	51.79	46.09			0.96		98.84	As-Pyrite
PB12-M03	MO3-BG	52.32	46.44					98.76	Pyrite
PB12-M03	MO3-CB	52.16	45.62					97.78	Pyrite
PB12-M03	MO3-CB	53.25	46.48					99.73	Pyrite
PB12-M03	MO3-CJ	53.37	46.93					100.30	Pyrite
PB12-M03	MO3-CN	52.40	46.62					99.02	Pyrite
PB12-M03	MO3-CT	51.79	45.64					97.43	Pyrite
PB12-M03	MO3-CW	50.79	45.61					96.40	Pyrite

Table 4: Sample PB12-M03 continued

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
PB12-M03	MO3-CY	36.33	32.18	31.99				100.50	Chalcopyrite
PB12-M03	MO3-CZ	53.47	47.00					100.47	Pyrite
PB12-M03	MO3-DA	52.39	46.59					98.97	Pyrite
PB12-M03	MO3-DC	37.08	34.32	26.50				97.91	Chalcopyrite
PB12-M03	MO3-DD	53.12	46.74					99.86	Pyrite
PB12-M03	MO3-DF	53.10	46.72					99.81	Pyrite
PB12-M03	MO3-DH	34.47	30.92	34.30				99.68	Chalcopyrite
PB12-M03	MO3-DI	52.83	46.71					99.54	Pyrite
PB12-M03	MO3-DN	53.14	47.02					100.16	Pyrite
PB12-M03	MO3-DQ	53.34	46.41					99.76	Pyrite
PB12-M03	MO3-DT	52.78	46.39					99.17	Pyrite
PB12-M03	MO3-DY	52.78	46.07					98.85	Pyrite
PB12-M03	MO3-EE	35.48	31.24	32.31				99.03	Chalcopyrite
PB12-M03	MO3-EF	52.79	46.79					99.58	Pyrite
PB12-M03	MO3-EI	52.40	46.34					98.73	Pyrite
PB12-M03	MO3-EV	52.27	46.50					98.76	cu-Pyrite
PB12-M03	MO3-FF	34.03	30.97	33.92				98.91	Chalcopyrite
PB12-M03	MO3-FG	52.81	47.12					99.93	Pyrite
PB12-M03	MO3-FL	37.31	32.11	31.13				100.55	Chalcopyrite
PB12-M03	MO3-FM	52.25	46.62			0.51		99.38	As-Pyrite
PB12-M03	MO3-FO	52.80	46.44					99.24	Pyrite

Table 5: Sample PB12-M06

Sample	Analysis	S	Fe	Cu	Zn	As	Sb	Total	Mineral
				Element %					
PB12-M06	M06 C	53.76	47.36					101.11	Pyrite
PB12-M06	M06 F	53.28	47.20			0.44		100.92	Pyrite
PB12-M06	M06 H	53.31	46.89			1.08		101.28	Pyrite
PB12-M06	M06 J	53.68	47.57					101.25	Pyrite
PB12-M06	M06 L	52.66	46.69			1.78		101.13	Pyrite
PB12-M06	M06 N	53.67	47.95					101.62	Pyrite
PB12-M06	M06 P	53.66	46.99					100.65	Pyrite
PB12-M06	M06 R	53.50	47.09					100.59	Pyrite
PB12-M06	M06 T	52.92	46.63			0.80		100.35	Pyrite
PB12-M06	M06 U	53.86	47.13					100.99	Pyrite
PB12-M06	M06 V	54.00	47.26					101.26	Pyrite
PB12-M06	M06 X	53.43	47.02					100.45	Pyrite
PB12-M06	M06 Y	35.10	31.32	34.56				100.97	Chalcopyrite
PB12-M06	M06 Z	52.84	46.92					99.77	Pyrite

Appendix 5c: Pakaka deposit; Host lithologies and alteration EDS data

Table 1: Sample PB12-PK02

Sample	Analysis	S	Fe	Ag	Au	Total	Mineral
			Element %				
PB12-PK02	PK02-CE			49.89	49.45	99.34	gold
PB12-PK02	PK02-DO			8.97	92.19	101.16	gold
PB12-PK02	PK02-DQ		2.94	6.97	88.93	98.84	gold
PB12-PK02	PK02-DQ2						gold
PB12-PK02	PK02-DQ3						gold
PB12-PK02	PK02-DR		4.13	11.80	84.57	100.51	gold
PB12-PK02	PK02-DS			12.82	86.52	99.34	gold
PB12-PK02	PK02-DU			7.93	91.76	99.69	gold
PB12-PK02	PK02-DV2						gold
PB12-PK02	PK02-DV3						gold
PB12-PK02	PK02-DV4						gold
PB12-PK02	PK02-DV5						gold
PB12-PK02	PK02-DW	15.10	9.69	10.76	75.04	110.60	gold
PB12-PK02	PK02-DX		2.79	47.68	47.50	97.96	gold
PB12-PK02	PK02-DY	32.23	20.68	6.11	49.07	108.08	gold
PB12-PK02	PK02-DY2						gold
PB12-PK02	PK02-DY3						gold
PB12-PK02	PK02-DY4						gold
PB12-PK02	PK02-EB			11.39	88.39	99.78	gold
PB12-PK02	PK02-ED		3.40	12.48	84.80	100.67	gold
PB12-PK02	PK02-EH	8.87	7.09	50.36	43.26	109.58	gold
PB12-PK02	PK02-EK		2.59	37.30	60.72	100.61	gold

Table 2: Sample PB12-PK02(B)

Sample	Analysis	S	Fe	Ag	Au	Total	Mineral
			Element %				
PB12-PK02B	PK02-N		2.88	8.83	87.65	99.36	gold
PB12-PK02B	PK02-O		2.54	9.54	88.78	100.86	gold
PB12-PK02B	PK02-T		0.65	59.01	35.96	95.63	gold
PB12-PK02B	PK02-BU			12.62	85.52	98.15	gold
PB12-PK02B	PK02-BW		2.02	6.35	90.51	98.88	gold
PB12-PK02B	PK02-BX			7.53	93.10	100.63	gold
PB12-PK02B	PK02-BY			6.99	91.37	98.36	gold

Table 3: Sample PB12-PK14

Sample	Analysis	S	Fe	Ag	Au	Total	Mineral
			Element %				
PB12-PK14	PK14-BA		4.59	18.83	77.06	100.49	gold
PB12-PK14	PK14-BD			15.36	85.25	100.61	gold
PB12-PK14	PK14-BI			16.43	83.90	100.33	gold
PB12-PK14	PK14-BP			12.77	87.14	99.91	gold
PB12-PK14	PK14-CD		1.26	20.37	79.06	100.69	gold
PB12-PK14	PK14-CC		4.09	19.68	75.11	98.88	gold
PB12-PK14	PK14-CE		3.03	15.82	81.92	100.77	gold
PB12-PK14	PK14-CJ			18.17	81.14	99.32	gold
PB12-PK14	PK14-CL		3.22	20.45	75.71	99.38	gold
PB12-PK14	PK14-CP		3.10	17.23	81.24	101.58	gold
PB12-PK14	PK14-CR		1.91	17.96	81.01	100.88	gold
PB12-PK14	PK14-CZ		2.93	12.66	85.60	101.19	gold
PB12-PK14	PK14-DB		1.70	17.40	80.86	99.96	gold
PB12-PK14	SITE 1 B		2.82	18.90	78.67	100.40	gold
PB12-PK14	SITE 3 F		1.12	13.70	81.90	96.71	gold
PB12-PK14	SITE 3 F2		1.61	14.11	81.11	96.83	gold

Appendix 5c: Pakaka deposit; Host lithologies and alteration EDS data

Table 1: Sample PB12-PK02

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	ZrO_2	WO_3	Total	Min Name
								wt%									
PB12-PK02	SITE 1 A	103.28														103.28	Quartz
PB12-PK02	SITE 1 B				12.43	0.46	12.87	26.76								52.52	Ankerite
PB12-PK02	SITE 1 C		94.20										1.21		2.10	97.52	Rutile
PB12-PK02	SITE 1 D	103.54														103.54	Quartz
PB12-PK02	SITE 1 E	45.40	0.56	32.78	0.72		0.85		9.76	0.65			0.45			91.17	Aluminoceladonite
PB12-PK02	SITE 1 F		98.08										0.57			98.65	Rutile
PB12-PK02	SITE 2 A	70.93		19.19						12.26						102.37	Albite
PB12-PK02	SITE 2 A2	105.47														105.47	Quartz
PB12-PK02	SITE 2 B				12.58	0.46	12.94	27.39								53.37	Ankerite
PB12-PK02	SITE 2 C							53.10			39.11					92.21	Fluoroapatite
PB12-PK02	SITE 2 E	98.13		4.51						1.68						104.32	Albite
PB12-PK02	SITE 2 E2	70.96		19.45						12.52						102.93	Albite
PB12-PK02	SITE 2 E3	105.23														105.23	Quartz
PB12-PK02	SITE 2 F				12.25	0.58	12.98	27.38								53.19	Ankerite
PB12-PK02	SITE 2 G							54.92			40.81					95.74	Fluoroapatite
PB12-PK02	SITE 2 H	28.43		0.75	0.69			1.44						57.05		88.36	Al-celadonite
PB12-PK02	SITE 2 H2	31.10						2.06						61.64		94.80	Al-celadonite
PB12-PK02	SITE 3 A	71.81		19.32						12.61						103.74	Albite
PB12-PK02	SITE 3 A2	71.31		19.34						12.58						103.23	Albite
PB12-PK02	SITE 3 B				12.43	0.52	13.35	27.69								54.00	Ankerite
PB12-PK02	SITE 3 C	48.82	0.60	30.72	1.72		1.80		10.27	0.42		0.42	0.56			95.33	Aluminoceladonite
PB12-PK02	SITE 3 D	71.19		19.54						12.59						103.32	Albite
PB12-PK02	SITE 3 D2	71.85		19.44						12.76						104.05	Albite
PB12-PK02	SITE 3 E	46.81	0.83	32.58	1.08		1.01		10.23	0.55			0.40			93.49	Aluminoceladonite
PB12-PK02	SITE 3 F	47.33	0.60	33.28	0.94		0.94		10.02	0.52						93.63	Aluminoceladonite
PB12-PK02	SITE 4 A	70.97		19.27						12.41						102.65	Albite
PB12-PK02	SITE 4 A2	71.28		19.51						12.59						103.37	Albite
PB12-PK02	SITE 4 B	47.25	0.50	33.41	1.18		0.78		10.08	0.44			0.54			94.18	Aluminoceladonite
PB12-PK02	SITE 4 C							54.83			41.30				2.08	98.20	Fluroapatite

Table 1: Sample PB12-PK02; continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	ZrO_2	WO_3	Total	Min Name
								wt%									
PB12-PK02	SITE 4 D	70.99		19.25						12.57						102.80	Albite
PB12-PK02	SITE 4 E				13.08	0.57	12.61	27.49								53.75	Ankerite
PB12-PK02	SITE 4 F							53.35			39.61					92.96	Fluoroapatite
PB12-PK02	SITE 5 A	104.40														104.40	Quartz
PB12-PK02	SITE 5 B				13.03	0.47	12.60	27.35								53.45	Ankerite
PB12-PK02	SITE 5 C				11.56	0.53	13.54	27.60								53.22	Ankerite
PB12-PK02	SITE 5 D							53.46			39.56					93.02	Fluoroapatite
PB12-PK02	SITE 5 E	103.52														103.52	Quartz
PB12-PK02	SITE 5 F				13.62	0.55	11.97	27.35								53.48	Ankerite
PB12-PK02	SITE 5 G				10.49	0.48	14.03	27.85								52.86	Ankerite
PB12-PK02	SITE 6 A	104.30														104.30	Quartz
PB12-PK02	SITE 6 B				12.85	0.50	12.60	27.28								53.23	Ankerite
PB12-PK02	SITE 6 C	104.27														104.27	Quartz
PB12-PK02	SITE 6 D				13.05	0.50	12.90	27.21								53.67	Ankerite
PB12-PK02	SITE 6 E	104.13														104.13	Quartz
PB12-PK02	SITE 6 F				12.01	0.51	12.97	27.51								53.00	Ankerite
PB12-PK02	SITE 6 G	47.32	0.64	31.78	1.39		1.15		9.97	0.42			0.52			93.19	Aluminoceladonite
PB12-PK02	SITE 7 A	69.76		19.04						12.37						101.16	Albite
PB12-PK02	SITE 7 A2	104.21														104.21	Quartz
PB12-PK02	SITE 7 B				12.67	0.62	12.37	27.12								52.78	Ankerite
PB12-PK02	SITE 7 C	104.33														104.33	Quartz
PB12-PK02	SITE 7 D				12.80	0.45	12.69	27.13								53.07	Ankerite
PB12-PK02	SITE 8 A	69.76		18.94						12.68						101.38	Albite
PB12-PK02	SITE 8 B	47.18	0.54	31.69	1.01		1.18		9.78	0.57			0.57			92.52	Aluminoceladonite
PB12-PK02	SITE 8 C							53.87			39.87					93.74	Fluoroapatite
PB12-PK02	SITE 8 D	69.98		18.91						12.42						101.31	Albite
PB12-PK02	SITE 8 E				12.41	0.48	12.78	27.38								53.04	Ankerite
PB12-PK02	SITE 8 F							53.93			39.90					93.82	Fluoroapatite

Table 2: Sample PB12-PK04

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	CoO	WO_3	Total	Min Name
								wt%									
PB12-PK04	SITE 1 A	67.38		19.15					0.72	11.60						98.86	Al-celadonite
PB12-PK04	SITE 1 B				15.60	0.52	11.06	27.48								54.66	Ankerite
PB12-PK04	SITE 1 B2	48.22	0.46	31.87	1.44		1.15		9.60	0.84			0.51			94.09	Al-celadonite
PB12-PK04	SITE 1 C							54.89			41.00				1.84	97.73	Ca-phosphate
PB12-PK04	SITE 1 D				15.03	0.38	11.43	27.08								53.92	Ankerite
PB12-PK04	SITE 1 E				15.10	0.43	11.56	27.24								54.33	Ankerite
PB12-PK04	SITE 1 F				15.01	0.36	11.60	27.46								54.43	Ankerite
PB12-PK04	SITE 1 G							54.78			41.18				2.01	97.97	Ca-phosphate
PB12-PK04	SITE 1 H	25.40		18.11	38.05		6.32									87.88	Chlorite
PB12-PK04	SITE 1 I				13.67	0.39	12.22	28.02								54.29	Ankerite
PB12-PK04	SITE 1 J	25.62		17.63	41.18		4.19									88.61	Chlorite
PB12-PK04	SITE 1 K	70.94		19.32						12.58						102.85	Albite
PB12-PK04	SITE 1 L	49.24		32.14	1.70		1.41		9.79	0.81			0.62			95.71	Al-celadonite
PB12-PK04	SITE 1 M				13.21	0.52	12.19	27.69								53.61	Ankerite
PB12-PK04	SITE 1 N				13.24	0.39	12.30	27.40								53.34	Ankerite
PB12-PK04	SITE 1 O							54.38			40.50					94.88	Ca-phosphate
PB12-PK04	SITE 1 P	24.97	0.78	17.88	40.52		3.87							0.15		88.18	Chlorite
PB12-PK04	SITE 2 A	103.29														103.29	Albite
PB12-PK04	SITE 1 B				14.66	0.48	10.79	26.53								52.47	Ankerite
PB12-PK04	SITE 2 C		101.26													101.26	Ca-phosphate
PB12-PK04	SITE 2 D				15.59	0.45	11.36	27.80								55.20	Ankerite
PB12-PK04	SITE 1 E							55.50			40.93					96.43	Ca-phosphate
PB12-PK04	SITE 1 F	72.24		19.62						12.77						104.63	Ca-phosphate
PB12-PK04	SITE 2 G	48.65	0.55	32.71	1.24		1.21		9.98	0.66		0.49	0.35			95.84	Al-celadonite
PB12-PK04	SITE 2 H				14.77	0.56	11.90	28.00								55.23	Ankerite
PB12-PK04	SITE 2 H2	48.01	0.40	33.91	1.21		0.88		9.91	0.71		0.53				95.56	Al-celadonite
PB12-PK04	SITE 2 I							55.46			41.01					96.46	Ca-phosphate
PB12-PK04	SITE 2 J	48.26	0.40	33.68	0.86		0.99		9.85	0.78			0.32			95.14	Al-celadonite
PB12-PK04	SITE 2 K	47.80	0.54	34.10	0.79		0.92		9.72	0.83		0.40				95.11	Al-celadonite
PB12-PK04	SITE 2 L							55.85			42.04				1.98	99.86	Ca-phosphate

Table 2: Sample PB12-PK04; Continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	CoO	WO_3	Total	Min Name
								wt%									
PB12-PK04	SITE 2 M	71.54		19.66						12.58						103.77	albite
PB12-PK04	SITE 2 N				16.31	0.56	10.70	27.80								55.37	Ankerite
PB12-PK04	SITE 2 O							55.20			41.18				2.01	98.38	Ca-phosphate
PB12-PK04	SITE 2 P				15.18	0.46	11.58	27.89								55.11	Ankerite
PB12-PK04	SITE 3 A	71.66		19.67						12.60						103.93	albite
PB12-PK04	SITE 3 B				15.33	0.43	11.21	27.57								54.53	Ankerite
PB12-PK04	SITE 3 C							54.93			40.37					95.30	Ca-phosphate
PB12-PK04	SITE 3 D	47.55	0.54	33.37	1.06		0.93		9.65	0.77			0.41			94.28	Al-celadonite
PB12-PK04	SITE 3 E				14.90	0.40	11.46	27.53								54.29	Ankerite
PB12-PK04	SITE 3 F							55.44			40.69					96.12	Ca-phosphate
PB12-PK04	SITE 3 G				14.91	0.37	11.47	27.65								54.39	Ankerite
PB12-PK04	SITE 3 H	48.24		31.94	1.45		1.18		9.81	0.76						93.37	Al-celadonite
PB12-PK04	SITE 3 I							55.56			41.19				1.81	98.56	Ca-phosphate
PB12-PK04	SITE 3 J	48.67	0.43	32.64	1.34		1.15		9.61	0.73						94.57	Al-celadonite
PB12-PK04	SITE 3 K				15.87	0.47	11.20	27.67								55.21	Ankerite
PB12-PK04	SITE 3 L							55.12			40.85					95.97	Ca-phosphate
PB12-PK04	SITE 3 M	71.89		19.70						12.49						104.07	Albite
PB12-PK04	SITE 3 N	46.97	0.61	33.25	0.81		1.04	0.88	9.46	0.92			0.40			94.34	Al-celadonite
PB12-PK04	SITE 3 O				15.26	0.48	11.59	27.87								55.21	Ankerite
PB12-PK04	SITE 3 P		100.81													100.81	Rutile

Table 3: Sample PB12-PK14

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	V_2O_3	Total	Min Name
						wt%							
PB12-PK14	SITE 1 A	104.37										104.37	Quartz
PB12-PK14	SITE 1 B				13.56	0.45	12.26	27.43				53.70	Ankerite
PB12-PK14	SITE 1 C	46.80	0.45	33.52	1.06		0.80		9.54	0.71		92.87	Aluminoceladonite
PB12-PK14	SITE 1 D	105.09										105.09	Quartz
PB12-PK14	SITE 1 E				12.69	0.49	12.41	27.22				52.82	Ankerite
PB12-PK14	SITE 1 F	47.72	0.48	33.57	0.89		0.97		9.68	0.77		94.08	Aluminoceladonite
PB12-PK14	SITE 2 A	104.04										104.04	Quartz
PB12-PK14	SITE 2 B				11.03	0.56	13.17	27.90				52.65	Ankerite
PB12-PK14	SITE 2 C	47.05	0.41	34.16	0.96		0.74		9.61	0.71		93.64	Aluminoceladonite
PB12-PK14	SITE 2 D	104.17										104.17	Quartz
PB12-PK14	SITE 2 E				13.84	0.50	12.15	27.43				53.92	Ankerite
PB12-PK14	SITE 2 F	46.16	0.47	33.45	0.89		0.90	0.40	9.44	0.73	0.37	92.80	Aluminoceladonite
PB12-PK14	SITE 3 A	104.35										104.35	Quartz
PB12-PK14	SITE 3 B				14.82	0.46	11.45	27.27				53.99	Ankerite
PB12-PK14	SITE 3 C	104.36										104.36	Quartz
PB12-PK14	SITE 3 D				14.54	0.51	11.52	27.43				54.00	Ankerite
PB12-PK14	SITE 4 A	105.19										105.19	Quartz
PB12-PK14	SITE 4 B				14.37	0.42	11.92	27.20				53.90	Ankerite
PB12-PK14	SITE 4 C	23.27		20.94	37.81		4.89					86.92	Chlorite
PB12-PK14	SITE 4 D	103.86										103.86	Quartz
PB12-PK14	SITE 4 E				13.59	0.48	12.07	27.08				53.21	Ankerite
PB12-PK14	SITE 4 F				9.85	0.62	14.45	27.81				52.72	Ankerite
PB12-PK14	SITE 5 A	103.00										103.00	Quartz
PB12-PK14	SITE 5 B				14.63	0.42	11.44	27.00				53.49	Ankerite
PB12-PK14	SITE 5 C	103.52										103.52	Quartz
PB12-PK14	SITE 5 D				14.35	0.42	11.74	27.00				53.51	Ankerite

Table 4: Sample PB12-PK14

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	WO_3	Total	Min Name
								wt%								
PB12-PK14	SITE 1 A	106.61													106.61	Quartz
PB12-PK14	SITE 1 B				12.16	0.47	12.97	28.03							53.62	Ankerite
PB12-PK14	SITE 1 C				13.57	0.67	13.07	27.83							55.14	Ankerite
PB12-PK14	SITE 1 D							55.63			41.66			1.86	99.15	Ca-phosphate
PB12-PK14	SITE 1 E				9.87	0.65	14.93	28.05							53.49	Ankerite
PB12-PK14	SITE 1 F				0.43			55.55			41.93			2.05	99.96	Albite
PB12-PK14	SITE 1 G	106.45													106.45	Ca-phosphate
PB12-PK14	SITE 1 H				14.05	0.65	12.22	27.84							54.75	Ankerite
PB12-PK14	SITE 1 I							55.82			42.26			1.81	99.89	Ca-phosphate
PB12-PK14	SITE 1 J				14.02	0.72	12.74	27.81							55.29	Ankerite
PB12-PK14	SITE 1 K	106.21													106.21	Quartz
PB12-PK14	SITE 2 A	104.29													104.29	Quartz
PB12-PK14	SITE 2 B				11.72	0.70	13.36	27.66							53.44	Ankerite
PB12-PK14	SITE 2 C							54.54			41.01			2.00	97.55	Ca-phosphate
PB12-PK14	SITE 2 D				13.29	0.62	12.26	27.18							53.36	Ankerite
PB12-PK14	SITE 2 E				13.09	0.46	12.76	27.22							53.54	Ankerite
PB12-PK14	SITE 2 F	104.49													104.49	Quartz
PB12-PK14	SITE 2 G				13.18	0.70	12.59	27.21							53.68	Ankerite
PB12-PK14	SITE 2 H							54.42			39.85			2.01	96.27	Ca-phosphate
PB12-PK14	SITE 2 I							53.86			39.41				93.28	Ca-phosphate
PB12-PK14	SITE 2 J				13.65	0.48	12.24	27.23							53.60	Ankerite
PB12-PK14	SITE 2 K							54.55			41.39			1.74	97.68	Ca-phosphate
PB12-PK14	SITE 2 L				14.19	0.60	11.69	27.24							53.72	Ankerite
PB12-PK14	SITE 2 M				12.99	0.60	12.75	26.93							53.27	Ankerite
PB12-PK14	SITE 2 N	104.12													104.12	Quartz
PB12-PK14	SITE 2 O				14.96	0.77	10.86	27.08							53.68	Ankerite
PB12-PK14	SITE 2 P	104.81													104.81	Quartz
PB12-PK14	SITE 3 A	105.09													105.09	Quartz
PB12-PK14	SITE 3 B							54.49			40.31				94.80	Ca-phosphate
PB12-PK14	SITE 3 C				12.22	0.51	12.99	27.58							53.30	Ankerite

Table 4: Sample PB12-PK14; Continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	WO_3	Total	Min Name
								wt%								
PB12-PK14	SITE 3 D	104.16													104.16	Quartz
PB12-PK14	SITE 3 E							54.28			39.91				94.19	Ca-phosphate
PB12-PK14	SITE 3 F				13.95	0.75	12.15	26.66							53.50	Ankerite
PB12-PK14	SITE 3 G				13.75	0.60	12.19	27.18							53.72	Ankerite
PB12-PK14	SITE 3 H				11.30	0.49	13.50	27.65							52.95	Ankerite
PB12-PK14	SITE 3 I				13.80	0.56	12.39	27.33							54.08	Ankerite
PB12-PK14	SITE 3 J				13.41	0.64	12.57	27.13							53.75	Ankerite
PB12-PK14	SITE 3 K	104.50													104.50	Quartz
PB12-PK14	SITE 3 L				12.86	0.62	12.62	27.14							53.24	Ankerite
PB12-PK14	SITE 4 A	105.54													105.54	Quartz
PB12-PK14	SITE 4 B				14.74	0.70	11.16	27.24							53.85	Ankerite
PB12-PK14	SITE 4 C							53.96			39.43				93.38	Ca-phosphate
PB12-PK14	SITE 4 C2	49.93	0.37	31.41	1.37		1.31		9.74	0.52		0.89	0.42		95.96	Al-celadonite
PB12-PK14	SITE 4 D				14.48	0.67	11.43	27.13							53.71	Ankerite
PB12-PK14	SITE 4 E	104.92													104.92	Quartz
PB12-PK14	SITE 4 F				14.33	0.54	11.74	27.42							54.03	Ankerite
PB12-PK14	SITE 4 G				13.97	0.70	11.80	27.08							53.55	Ankerite
PB12-PK14	SITE 4 H	105.24													105.24	Quartz
PB12-PK14	SITE 4 I				14.35	0.64	11.82	27.15							53.97	Ankerite
PB12-PK14	SITE 4 J							54.50			40.74			2.34	97.58	Ca-phosphate
PB12-PK14	SITE 4 K				13.62	0.60	11.95	27.19							53.36	Ankerite
PB12-PK14	SITE 4 L				13.83	0.59	12.03	26.97							53.41	Ankerite

Table 5: Sample 2013-P5

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	NiO	BaO	WO_3	Total	Min Name
									wt%									
2013-P5	SITE 1 A	102.49															102.49	Quartz
2013-P5	SITE 1 B	102.79															102.79	Quartz
2013-P5	SITE 1 C	29.61		18.32	21.77		16.20										85.89	Chlorite
2013-P5	SITE 1 D	25.71		18.58	22.46		13.95						0.36				81.06	Chlorite
2013-P5	SITE 1 E	25.92		17.81	21.70		15.37										80.80	Chlorite
2013-P5	SITE 1 F	102.38															102.38	Quartz
2013-P5	SITE 1 G	76.75		14.37						9.65							100.76	Albite
2013-P5	SITE 1 H							52.58			38.67						91.26	Ca-phosphate
2013-P5	SITE 1 I	50.79	0.99	28.33	1.76		1.79		9.13	0.39			0.63				93.82	Al-celadonite
2013-P5	SITE 1 J	0.93	97.64														98.57	Rutile
2013-P5	SITE 1 K	3.07						51.57			36.49						91.13	Ca-phosphate
2013-P5	SITE 1 L	6.14	94.65														100.79	Rutile
2013-P5	SITE 1 M	47.22	0.89	29.64	2.39		1.88		9.31	0.50			0.70				92.52	Al-celadonite
2013-P5	SITE 1 N	46.79	0.89	28.11	2.34		2.39		8.93	0.30			0.55				90.30	Al-celadonite
2013-P5	SITE 1 O	27.22		20.94	23.64		15.70						0.66				88.15	Chlorite
2013-P5	SITE 1 P	26.77	0.32	19.86	23.32		16.00						0.54				86.81	Chlorite
2013-P5	SITE 1 Q	28.16		19.89	21.51		14.44		0.81				0.37				85.19	Chlorite
2013-P5	SITE 1 R	26.50		20.41	23.35		15.60						0.62				86.48	Chlorite
2013-P5	SITE 1 S	29.64	0.58	21.13	21.49		13.26		1.12				0.52				87.73	Chlorite
2013-P5	SITE 1 T	103.57															103.57	Quartz
2013-P5	SITE 1 U	26.76		19.62	22.72		15.92						0.51				85.53	Chlorite
2013-P5	SITE 1 V	47.36	1.06	28.83	2.52		1.87		8.74	0.46			0.78				91.62	Al-celadonite
2013-P5	SITE 1 W	26.58		18.99	22.85		15.72						0.50				84.64	Chlorite
2013-P5	SITE 1 X	48.10	1.18	25.98	4.18		3.33		7.89				0.52				91.17	Al-celadonite
2013-P5	SITE 1 Y	105.01															105.01	Quartz
2013-P5	SITE 2 A	102.77															102.77	Quartz
2013-P5	SITE 2 B	48.85	0.61	26.29	3.23		3.27		9.20	0.39					2.64		94.48	Al-celadonite
2013-P5	SITE 2 C	0.85						53.90			39.05						93.80	Ca-phosphate
2013-P5	SITE 2 D							53.73			39.61						93.35	Ca-phosphate

Table 5: Sample 2013-P5; Continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	NiO	BaO	WO_3	Total	Min Name
									wt%									
2013-P5	SITE 2 E	49.01	0.83	29.58	1.77		1.56		9.47	0.66			0.59				93.47	Al-celadonite
2013-P5	SITE 2 F	102.91															102.91	Quartz
2013-P5	SITE 2 G	103.38															103.38	Quartz
2013-P5	SITE 2 H	49.66		26.45	2.02		3.15		9.26						3.09		93.63	Al-celadonite
2013-P5	SITE 2 I	27.26		19.19	22.07		16.43										84.94	Chlorite
2013-P5	SITE 2 J	27.74		19.56	22.54		16.43										86.28	Chlorite
2013-P5	SITE 2 K	52.05	1.43	27.15	2.38		3.22		8.99	1.07							96.28	Al-celadonite
2013-P5	SITE 2 L	103.53															103.53	Quartz
2013-P5	SITE 2 M	30.74	0.39	21.59	21.10		14.27		1.41				0.60				90.10	Al-celadonite
2013-P5	SITE 2 N	27.93		19.70	22.73		16.72						0.61				87.68	Chlorite
2013-P5	SITE 2 O				0.53			53.96			40.52						95.00	Ca-phosphate
2013-P5	SITE 2 P				0.30			52.70			38.73						91.73	Ca-phosphate
2013-P5	SITE 2 Q	28.46		19.36	21.74		16.13		0.50				0.56				86.76	Chlorite
2013-P5	SITE 2 R	104.19															104.19	Quartz
2013-P5	SITE 2 S	27.75		19.59	23.45		16.66						0.52				87.97	Chlorite
2013-P5	SITE 2 T	45.12	1.42	25.32	4.89		3.97		8.04				0.88				89.64	Al-celadonite
2013-P5	SITE 2 U				0.48			55.43			40.57						96.48	Ca-phosphate
2013-P5	SITE 2 V				0.40			54.97			40.44						95.81	Ca-phosphate
2013-P5	SITE 2 W	27.50		20.02	24.08		15.57						0.63				87.79	Chlorite
2013-P5	SITE 2 X	26.24		20.15	24.57		15.20						0.55				86.71	Chlorite
2013-P5	SITE 2 Y	104.28															104.28	Quartz
2013-P5	SITE 3 A	105.27															105.27	Quartz
2013-P5	SITE 3 B	49.12	0.78	26.47	2.24		2.62		9.68				0.34				91.24	Al-celadonite
2013-P5	SITE 3 C				1.55	0.73	0.46	49.03									51.78	calcite
2013-P5	SITE 3 D				1.62	0.58	0.53	48.93									51.66	calcite
2013-P5	SITE3 E	26.57		19.24	22.65		15.82						0.63	0.31			85.22	Chlorite
2013-P5	SITE 3 F	70.45		19.05						11.79							101.29	Albite
2013-P5	SITE 3 G	69.97		19.56						11.89							101.41	Albite
2013-P5	SITE 3 H	49.21		30.37	1.46		1.75		10.27	0.32							93.37	Al-celadonite

Table 5: Sample 2013-P5; Continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	NiO	BaO	WO_3	Total	Min Name
									wt%									
2013-P5	SITE 3 I	50.34		27.09	2.74		2.88		9.25	0.85		0.57			3.03		96.74	Al-celadonite
2013-P5	SITE 3 J	49.13	1.15	28.00	2.33		2.50		9.61	0.37			0.50				93.59	Al-celadonite
2013-P5	SITE 3 K	27.38		21.04	23.41		16.32						0.50				88.65	Chlorite
2013-P5	SITE 3 L	26.78		20.71	23.89		15.77						0.74				87.88	Chlorite
2013-P5	SITE 3 M	38.51	0.49	24.12	10.25		7.67		5.72				0.76		1.68		89.21	Chlorite
2013-P5	SITE 3 N	27.18		20.68	23.44		16.31						0.59				88.20	Chlorite
2013-P5	SITE 3 O	28.04		19.58	22.47		15.93		0.26				0.65				86.92	Chlorite
2013-P5	SITE 3 P	33.46	0.44	23.96	18.98		12.72		2.69				0.73				92.97	Al-celadonite
2013-P5	SITE 3 Q	46.24	0.70	25.65	4.53		4.13		8.31				0.68		2.59		92.83	Al-celadonite
2013-P5	SITE 3 R	70.59		18.94						11.83							101.35	Albite
2013-P5	SITE 3 S				11.53	0.68	13.29	28.25									53.74	calcite
2013-P5	SITE 3 T							54.95			40.38						95.32	Ca-phosphate
2013-P5	SITE 3 U							55.04			40.20						95.24	Ca-phosphate
2013-P5	SITE 3 V				11.19	1.00	12.74	28.38									53.31	Ankerite
2013-P5	SITE 3 W							54.91			40.69					1.59	97.20	Ca-phosphate
2013-P5	SITE 3 X				11.19	1.19	12.62	28.58									53.58	Ankerite
2013-P5	SITE 3 Y							54.69			40.11						94.80	Ca-phosphate

Table 6: Sample 2013-P24

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	WO_3	Total	Min Name
								wt%								
2013-P24	SITE 1 A				11.85		13.56	27.49							52.90	Ankerite
2013-P24	SITE 1 B				11.64	0.43	13.79	28.56							54.42	Ankerite
2013-P24	SITE 1 C				11.59	0.52	14.08	28.09							54.28	Ankerite
2013-P24	SITE 1 D				7.61	0.40	16.68	28.08							52.77	Ankerite
2013-P24	SITE 1 E				11.72	0.53	13.65	28.19							54.08	Ankerite
2013-P24	SITE 1 F				11.67	0.52	13.50	28.64							54.34	Ankerite
2013-P24	SITE 1 G				0.55			54.78			37.54				92.87	Ca-phosphate
2013-P24	SITE 1 H	71.62		19.52						12.61					103.75	Albite
2013-P24	SITE 1 I				11.58	0.42	12.91	28.28							53.20	Ankerite
2013-P24	SITE 1 J	48.08	0.38	32.36	1.10		1.18		9.89	0.66					93.65	Al-celadonite
2013-P24	SITE 1 K	71.53		19.70	0.29					12.27					103.79	Albite
2013-P24	SITE 1 L	48.56	0.57	31.90	1.78		1.49		9.88	0.40			0.70		95.26	Al-celadonite
2013-P24	SITE 1 M	48.53	0.52	32.47	1.40		1.28		10.26	0.64					95.10	Al-celadonite
2013-P24	SITE 1 N		99.88		0.41								0.62		100.91	Rutile
2013-P24	SITE 1 O	48.83	0.51	31.31	1.75		1.55		9.93	0.39			0.50		94.77	Al-celadonite
2013-P24	SITE 1 P	48.98	0.56	32.00	1.74		1.51		10.02				0.64		95.45	Al-celadonite
2013-P24	SITE 1 Q	72.05		19.66	0.30					12.14					104.14	albite
2013-P24	SITE 1 R	49.29	0.63	32.87	1.32		1.14		9.92	0.43			0.30		95.92	Al-celadonite
2013-P24	SITE 1 S	48.32	0.53	32.93	1.43		1.41		9.75	0.57			0.35		95.29	Al-celadonite
2013-P24	SITE 1 T				11.60	0.53	13.82	28.52							54.48	Ankerite
2013-P24	SITE 1 U	48.40	0.52	31.12	2.75		1.66		9.94	0.46			0.53		95.39	Al-celadonite
2013-P24	SITE 1 V	48.85	0.39	32.32	1.49		1.53		9.99	0.64					95.21	Al-celadonite
2013-P24	SITE 2 A	71.61		19.71						12.68					104.00	Albite
2013-P24	SITE 2 B				11.73	0.31	14.02	27.81							53.88	Ankerite
2013-P24	SITE 2 C				10.89		14.01	28.10							53.00	Ankerite
2013-P24	SITE 2 D				11.39	0.33	14.40	28.42							54.54	Ankerite
2013-P24	SITE 2 E				12.08	0.49	13.26	28.80							54.63	Ankerite
2013-P24	SITE 2 F				11.54	0.50	13.61	28.59							54.24	Ankerite
2013-P24	SITE 1 G	73.22		19.74						13.00					105.97	Albite
2013-P24	SITE 2 G				12.51	0.51	13.29	28.43							54.75	Ankerite

Table 6: Sample 2013-P24; Continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	CrO	WO_3	Total	Min Name
								wt%								
2013-P24	SITE 2 H	49.10	0.54	31.42	1.73		1.66		10.08	0.38		0.36	0.70		95.98	Al-celadonite
2013-P24	SITE I		99.55										0.59		100.14	Rutile
2013-P24	SITE 2 J	48.91	0.47	32.30	0.98		1.53		9.82	0.57			0.39		94.97	Al-celadonite
2013-P24	SITE 2 K				11.35	0.47	13.65	28.18							53.65	Ankerite
2013-P24	SITE 2 L	48.43	0.52	31.74	1.26		1.44		10.11	0.45			0.78		94.74	Al-celadonite
2013-P24	SITE 2 M	68.53		18.42						11.30					98.24	Albite
2013-P24	SITE 2 N	2.24	90.00		1.30				0.58			1.56	0.63	2.18	99.93	Rutile
2013-P24	SITE 2 O	46.78	0.58	30.63	1.67		1.51		9.46	0.37			0.53		91.54	Al-celadonite
2013-P24	SITE 2 P	49.96	0.51	32.81	1.42		1.57		9.83	0.37			0.43		96.91	Al-celadonite
2013-P24	SITE 2 Q		99.12		0.54								0.67		101.34	Rutile
2013-P24	SITE 2 R	50.22	2.95	30.87	2.09		1.50		9.60	1.03			0.72		99.68	Al-celadonite
2013-P24	SITE 2 S	48.66	0.73	31.13	1.95		1.43		10.06	0.48			0.85		96.13	Al-celadonite
2013-P24	SITE 3 A	70.25		19.19						12.51					101.95	albite
2013-P24	SITE 3 B				11.39	0.42	13.30	27.50							52.62	Ankerite
2013-P24	SITE 3 C				11.83	0.57	12.76	27.78							52.94	Ankerite
2013-P24	SITE 3 D				11.37	0.49	13.61	28.00							53.47	Ankerite
2013-P24	SITE 3 E	70.10		19.24						12.59					101.94	albite
2013-P24	SITE 3 F				11.49	0.50	13.24	27.66							52.90	Ankerite
2013-P24	SITE 3 G	0.50			10.69	0.30	14.33	27.25							53.07	Ankerite
2013-P24	SITE 3 H	70.46		19.48						12.58					102.52	Albite
2013-P24	SITE 3 I	49.43		31.79	1.16		1.74		10.09	0.41			0.41		95.02	Al-celadonite
2013-P24	SITE 3 J				10.86	0.44	14.22	27.82							53.35	Ankerite
2013-P24	SITE 3 K	0.70	98.37		0.87				0.24				0.59		100.77	Rutile
2013-P24	SITE 3 L	48.42	0.59	31.84	1.58		1.46		10.23	0.37		0.54	0.77		95.81	Al-celadonite
2013-P24	SITE 3 M	48.30	0.58	31.27	1.79		1.62		10.33				0.85		94.75	Al-celadonite
2013-P24	SITE 3 N	48.44	0.50	31.48	1.41		1.60		10.25	0.43			0.69		94.78	Al-celadonite
2013-P24	SITE 3 O	47.04	0.56	30.54	1.98		1.40		9.97	0.39		0.48	1.31		93.68	Al-celadonite
2013-P24	SITE 3 P	48.45	0.44	31.99	1.32		1.40		10.30	0.51			0.49		94.90	Al-celadonite

Table 7: Sample 2013-P35

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	CrO	Total	Min Name
							wt%							
2013-P35	SITE 1 A				1.95	0.62	0.91	49.90					53.38	Ankerite
2013-P35	SITE 1 B	26.10		20.02	30.16		11.62	0.48				0.26	88.64	Chlorite
2013-P35	SITE 1 C	26.38		18.90	29.82		12.09	0.30					87.49	Chlorite
2013-P35	SITE 1 D	25.37		19.35	30.59		11.25	0.28				0.40	87.24	Chlorite
2013-P35	SITE 1 E	25.27		19.36	30.44		11.29	0.28					86.64	Chlorite
2013-P35	SITE 1 F				2.18	0.61	0.95	49.75					53.48	Ankerite
2013-P35	SITE 1 G	25.43		19.83	30.85		11.37					0.42	87.89	Chlorite
2013-P35	SITE 1 H		52.51		47.06	0.62		0.29					100.49	Rutile
2013-P35	SITE 1 I				13.44	0.81	12.21	28.54					54.99	Ankerite
2013-P35	SITE 1 J				2.07	0.59	0.84	49.91					53.41	Ankerite
2013-P35	SITE 1 K	25.22		19.90	30.94		10.86	0.24				0.40	87.56	Chlorite
2013-P35	SITE 1 L	105.49											105.49	Quartz
2013-P35	SITE 1 M	26.68		19.55	30.45		12.19						88.87	Chlorite
2013-P35	SITE 1 N				14.12	0.66	11.75	28.01					54.53	Ankerite
2013-P35	SITE 1 O		100.67										100.67	Rutile
2013-P35	SITE 1 P		52.37		47.53	0.58		0.32					100.80	Rutile
2013-P35	SITE 1 Q				13.39	0.74	11.89	28.38					54.39	Ankerite
2013-P35	SITE 1 R	26.40		18.73	29.77		11.98						86.88	Chlorite
2013-P35	SITE 1 S				0.67			55.20			40.87		96.74	Ca-phosphate
2013-P35	SITE 1 T		52.42		47.15	0.57							100.14	Rutile
2013-P35	SITE 2 A				13.57	0.52	12.30	27.82					54.20	Ankerite
2013-P35	SITE 2 B	26.20		19.40	30.70		11.62					0.34	88.26	Chlorite
2013-P35	SITE 2 C	48.52	0.70	28.19	3.51		2.07		10.10	0.36		0.44	93.90	Al-celadonite
2013-P35	SITE 2 D		99.66		1.17							0.46	101.29	Rutile
2013-P35	SITE 2 E				2.03	0.41	0.82	50.50					53.76	Ankerite
2013-P35	SITE 2 F	26.92		18.96	29.60		12.67	0.42					88.56	Chlorite
2013-P35	SITE 2 G	25.02		19.41	30.63		10.94	0.25				0.34	86.60	Chlorite
2013-P35	SITE 2 H				13.23	0.68	11.48	28.20					53.59	Ankerite
2013-P35	SITE 2 I				2.24	0.48	0.97	49.59					53.27	Ankerite
2013-P35	SITE 2 J	26.16		18.54	30.34		12.48						87.52	Chlorite

Table 7: Sample 2013-P35; Continued

Sample	Analysis	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	CrO	Total	Min Name
							wt%							
2013-P35	SITE 2 K		99.82		0.94							0.50	101.26	Rutile
2013-P35	SITE 2 L	26.37		19.59	31.25		11.33					0.38	88.92	Chlorite
2013-P35	SITE 2 M		98.53		1.13							0.42	100.09	Rutile
2013-P35	SITE 2 N				13.95	0.67	11.80	28.35					54.77	Ankerite
2013-P35	SITE 2 O	48.39	0.71	29.24	3.23		2.00		10.10	0.32		0.43	94.40	Al-celadonite
2013-P35	SITE 2 P	26.05		19.11	31.25		11.67					0.32	88.40	Chlorite
2013-P35	SITE 2 Q	25.92		18.39	30.55		11.92					0.43	87.21	Chlorite
2013-P35	SITE 2 R		52.28		46.99	0.54							99.82	Rutile
2013-P35	SITE 2 S		100.58									0.45	101.03	Rutile
2013-P35	SITE 2 T	26.04		19.34	30.67		11.65					0.47	88.17	Chlorite
2013-P35	SITE 2 U				2.43	0.45	0.81	49.44					53.13	Ankerite
2013-P35	SITE 2 V				14.21	0.68	11.40	27.93					54.23	Ankerite
2013-P35	SITE 3 A				2.05	0.45	0.92	46.56					49.98	Ankerite
2013-P35	SITE 3 B				13.00	0.57	11.46	27.15					52.18	Ankerite
2013-P35	SITE 3 C	25.08		19.45	29.66		11.07	0.80				0.36	86.42	Chlorite
2013-P35	SITE 3 D	25.96		18.94	29.18		12.05						86.12	Chlorite
2013-P35	SITE 3 E	103.82											103.82	Quartz
2013-P35	SITE 3 F	24.44		19.69	30.70		10.58	0.22				0.48	86.11	Chlorite
2013-P35	SITE 3 G	25.73		18.35	29.92		11.72					0.38	86.10	Chlorite
2013-P35	SITE 3 H				0.37			52.93			38.89		92.19	Ca-phosphate
2013-P35	SITE 3 J				14.14	0.61	11.66	27.56					53.97	Ankerite
2013-P35	SITE 3 K	25.89		18.51	29.83		11.75					0.50	86.48	Chlorite
2013-P35	SITE 3 L		51.74		46.29	0.47		0.24					98.75	Rutile
2013-P35	SITE 3 M		96.94		0.73			0.66				0.45	98.79	Rutile
2013-P35	SITE 3 N	25.57		18.75	30.38		11.45					0.39	86.54	Chlorite
2013-P35	SITE 3 O	24.73		18.80	30.03		10.82	0.28				0.32	84.97	Chlorite

Appendix 5c: Pakaka deposit; Host lithologies and alteration EDS data

Table 1: Sample PB12-PK02

Sample	Analysis	S	Ti	Fe	Co	Ni	Cu	As	Te	Total	Mineral
					Elemental %						
PB12-PK02B	PK02-A	22.16		35.76				41.12		99.04	Arsenopyrite
PB12-PK02B	PK02-B	20.75		35.44				43.08		99.27	Arsenopyrite
PB12-PK02B	PK02-D	52.19		46.15				1.09		99.44	As-Pyrite
PB12-PK02B	PK02-E	34.80		30.10			34.34			99.24	Chalcopyrite
PB12-PK02B	PK02-F	52.33		46.26				1.16		99.75	As-Pyrite
PB12-PK02B	PK02-I	21.04		35.12				41.21		97.38	Arsenopyrite
PB12-PK02B	PK02-Pyrite(E-I)	52.90		46.55						99.45	Pyrite
PB12-PK02B	PK02-K	34.73		30.14			34.03			98.90	Chalcopyrite
PB12-PK02B	PK02-L	52.04		46.09				1.20		99.32	As-Pyrite
PB12-PK02B	PK02-M	21.23		35.10				41.46		97.79	Arsenopyrite
PB12-PK02B	PK02-P	21.09		35.42				41.81		98.31	Arsenopyrite
PB12-PK02B	PK02-Q	33.93		30.76			34.02			98.70	Chalcopyrite
PB12-PK02B	PK02-R	52.55		46.25						98.81	Chalcopyrite
PB12-PK02B	PK02-V	52.82		47.06						99.89	Pyrite
PB12-PK02B	PK02-W	21.92		36.13				41.63		99.68	Arsenopyrite
PB12-PK02B	PK02-Z	53.22		46.72						99.94	Pyrite
PB12-PK02B	PK02-BA	53.12		46.86						99.98	Pyrite
PB12-PK02B	PK02-BB	34.95		30.74			34.90			100.59	Chalcopyrite
PB12-PK02B	PK02-BD	20.81		32.60	2.21	0.78		42.27		98.67	Arsenopyrite
PB12-PK02B	PK02-BE	34.53		30.15			33.97			98.65	Chalcopyrite
PB12-PK02B	PK02-BF	53.12		46.61						99.73	Pyrite
PB12-PK02B	PK02-BL	52.54		46.33						98.87	Pyrite
PB12-PK02B	PK02-BO	52.71		46.62						99.34	Pyrite
PB12-PK02B	PK02-BP	21.35		34.79				43.12		99.26	Arsenopyrite
PB12-PK02B	PK02-BQ	52.76		46.85				0.91		100.52	As-Pyrite
PB12-PK02B	PK02-BT	21.72		35.27				40.61		97.60	Arsenopyrite
PB12-PK02B	PK02-BV	52.83		46.93						99.76	Pyrite

Table 2: Sample PB12-PK04

Sample	Analysis	S	Ti	Fe	Co	Ni	Cu	As	Te	Total	Mineral
					Elemental %						
PB12-PK04	SITE 1 A	40.31		59.32		0.42				100.04	Ni-Pyrite
PB12-PK04	SITE 1 B	40.58		59.55		0.41				100.55	Ni-Pyrite
PB12-PK04	SITE 1 C	40.70		59.44						100.15	Pyrite
PB12-PK04	SITE 1 DN	21.42		8.40	22.07	6.56		43.43		101.88	Co-Ni-Arsenopyrite
PB12-PK04	SITE 1 E	35.79		30.60			34.74			101.13	Chalcopyrite
PB12-PK04	SITE 1 F	35.95		30.40			34.55			100.89	Chalcopyrite
PB12-PK04	SITE 1 G	53.97		45.62				1.48		101.07	As-Pyrite
PB12-PK04	SITE 1 D	21.68		8.58	21.58	6.58		42.89		101.31	Co-Ni-Arsenopyrite
PB12-PK04	SITE 1 H	40.33		59.30						99.63	Pyrite
PB12-PK04	SITE 1 I	40.37		59.21		0.51				100.09	Ni-Pyrite
PB12-PK04	SITE 1 J	54.54		46.02				0.87		101.43	As-Pyrite
PB12-PK04	SITE 2 A	40.72		59.40						100.12	Pyrite
PB12-PK04	SITE 2 B	54.54		45.83				0.65		101.02	As-Pyrite
PB12-PK04	SITE 2 C	55.11		46.36						101.47	Pyrite
PB12-PK04	SITE 2 D	40.23		59.39						99.62	Pyrite
PB12-PK04	SITE 2 D2	21.37		28.06	7.75			43.93		101.11	co-Arsenopyrite
PB12-PK04	SITE 2 E	54.84		46.35						101.19	Pyrite
PB12-PK04	SITE 2 F	40.17		60.12		0.48				100.77	Ni-Pyrite
PB12-PK04	SITE 2 G	54.79		46.37						101.16	Pyrite
PB12-PK04	SITE 3 A	39.94		58.96		0.44				99.34	Ni-Pyrite
PB12-PK04	SITE 3 B	53.34		45.63				1.15		100.11	As-Pyrite
PB12-PK04	SITE 3 D	40.15		58.45		0.40				99.01	Ni-Pyrite
PB12-PK04	SITE 3 E	53.99		45.56				1.01		100.56	As-Pyrite
PB12-PK04	SITE 3 G	39.74		59.04						98.78	Pyrite

Table 3: Sample PB12-PK14; continued

Sample	Analysis	S	Ti	Fe	Co	Ni	Cu	As	Te	Total	Mineral
					Elemental %						
PB12-PK14	PK14-CF	20.75		34.84				41.11		96.70	Arsenopyrite
PB12-PK14	PK14-CG	52.91		46.52						99.42	Pyrite
PB12-PK14	PK14-CI	52.28		46.47						98.75	Pyrite
PB12-PK14	PK14-CK	52.45		46.93						99.38	Pyrite
PB12-PK14	PB13-CN	53.16		46.64						99.80	Pyrite
PB12-PK14	PK14-CQ	52.93		46.40						99.32	Pyrite
PB12-PK14	PK14-CU	52.49		46.25						98.75	Pyrite
PB12-PK14	PK14-CW	53.35		47.12						100.47	Pyrite
PB12-PK14	PK14-DA	53.35		46.47						99.82	Pyrite
PB12-PK14	PK14-DC	52.37		46.21						98.58	Pyrite
PB12-PK14	PK14-DE	53.22		46.63						99.85	Pyrite

Table 4: Sample PB12-PK14

Sample	Analysis	S	Ti	Fe	Co	Ni	Cu	As	Te	Total	Mineral
					Elemental %						
PB12-PK14	SITE 1 A	54.76		46.03						100.79	Pyrite
PB12-PK14	SITE 1 C	53.18		45.82						99.01	Pyrite
PB12-PK14	SITE 1 D	22.35		35.66				41.43		99.44	Arsenopyrite
PB12-PK14	SITE 1 E	23.98		35.67				41.59		101.24	Arsenopyrite
PB12-PK14	SITE 1 F	53.87		46.00				1.26		101.12	As-Pyrite
PB12-PK14	SITE 1 G	21.81		34.85				44.17		100.83	Arsenopyrite
PB12-PK14	SITE 1 H	54.45		45.43				0.56		100.44	As-Pyrite
PB12-PK14	SITE 1 I	21.68		33.72				43.27		98.67	Arsenopyrite
PB12-PK14	SITE 1 J	22.19		35.32				42.30		99.81	Arsenopyrite
PB12-PK14	SITE 1 K	54.81		46.39						101.20	Pyrite
PB12-PK14	SITE 1 L	38.75		59.62		0.50				98.86	Ni-Pyrite
PB12-PK14	SITE 1 M	38.76		59.04		0.42				98.22	Ni-Pyrite
PB12-PK14	SITE 1 N	54.20		46.40						100.59	Pyrite
PB12-PK14	SITE 1 O	22.32		35.67				41.77		99.76	Arsenopyrite
PB12-PK14	SITE 1 P	21.97		35.19				43.28		100.44	Arsenopyrite
PB12-PK14	SITE 1 Q	21.56		35.33				42.26	0.86	100.00	Arsenopyrite
PB12-PK14	SITE 3 A	53.98		46.35				0.72		101.05	As-Pyrite
PB12-PK14	SITE 3 B	21.57		35.17				42.47		99.21	Arsenopyrite
PB12-PK14	SITE 3 C	22.10		35.73				42.30		100.13	Arsenopyrite
PB12-PK14	SITE 3 D	54.39		45.83						100.22	Pyrite
PB12-PK14	SITE 3 E	54.27		46.11						100.38	Pyrite
PB12-PK14	SITE 3 E2	33.31		5.99			60.40			99.70	Chalcopyrite
PB12-PK14	SITE 3 G	54.26		46.14						100.40	Pyrite
PB12-PK14	SITE 3 H	54.18		45.65						99.83	Pyrite
PB12-PK14	SITE 3 I	21.37		35.03				43.96		100.36	Arsenopyrite
PB12-PK14	SITE 3 J	54.08		46.05						100.13	Pyrite
PB12-PK14	SITE 1 K	53.88		46.22						100.10	Pyrite
PB12-PK14	SITE 3 L	53.96		45.92						99.88	Pyrite
PB12-PK14	SITE 3 M	21.60		34.83				41.58		98.01	Arsenopyrite

Table 5: Sample 2013-P5

Sample	Analysis	S	Ti	Fe	Co	Ni	Cu	As	Te	Total	Mineral
					Elemental %						
2013-P5	SITE 1 A	55.23		44.86				0.58		100.67	As-Pyrite
2013-P5	SITE 1 B	55.79		46.60						102.39	Pyrite
2013-P5	SITE 1 C	40.78		59.75		0.54				101.07	Ni-Pyrite
2013-P5	SITE 1 D	55.48		44.89				0.54		100.91	As-Pyrite
2013-P5	SITE 1 E	55.13		45.27				0.60		100.99	As-Pyrite
2013-P5	SITE 1 F	56.35		46.69						103.04	Pyrite
2013-P5	SITE 1 G	55.65		46.05						101.70	Pyrite
2013-P5	SITE 1 H	55.73		46.23						101.96	Pyrite
2013-P5	SITE 1 I	40.39		60.09		0.65				101.14	Ni-Pyrite
2013-P5	SITE 1 J	54.72		45.14						99.86	Pyrite
2013-P5	SITE 1 K	55.40		46.41						101.82	Pyrite
2013-P5	SITE 1 L	55.73		45.10						100.82	Pyrite
2013-P5	SITE 1 M	55.27		46.20						101.47	Pyrite
2013-P5	SITE 2 A	22.34		8.23	19.82	9.57		43.21		103.18	Co-Ni-Arsenopyrite
2013-P5	SITE 2 B	55.29		46.24						101.54	Pyrite
2013-P5	SITE 2 C	55.09		46.03						101.11	Pyrite
2013-P5	SITE 2 D	37.54		31.59			32.35			101.48	Chalcopyrite
2013-P5	SITE 2 E	55.40		46.05						101.45	Pyrite
2013-P5	SITE 2 F	55.08		46.40						101.48	Pyrite
2013-P5	SITE 2 G	41.28		59.68						100.96	Pyrite
2013-P5	SITE 3 A	54.88		46.06						100.94	Pyrite
2013-P5	SITE 3 B	54.50		45.51						100.01	Pyrite
2013-P5	SITE 3 C	54.88		45.64						100.52	Pyrite
2013-P5	SITE 3 D	54.91		46.06						100.97	Pyrite
2013-P5	SITE 3 E	54.87		45.40		0.46				100.73	Ni-Pyrite
2013-P5	SITE 3 G	55.13		46.07						101.19	Pyrite
2013-P5	SITE 3 H	55.37		46.39						101.76	Pyrite
2013-P5	SITE 3 I	54.71		46.15		0.49				101.36	Ni-Pyrite
2013-P5	SITE 3 K	55.39		46.29						101.68	Pyrite

Table 6: Sample 2013-P24

Sample	Analysis	S	Ti	Fe	Co	Ni	Cu	As	Te	Total	Mineral
					Elemental %						
2013-P24	SITE 1 A	54.81		46.11						100.92	Pyrite
2013-P24	SITE 1 B	22.17		35.07				43.33		100.58	Arsenopyrite
2013-P24	SITE 1 C	54.56		45.70				0.84		101.10	As-Pyrite
2013-P24	SITE 1 D	23.99		36.03				39.37		99.39	Arsenopyrite
2013-P24	SITE 1 E	52.65		45.83				2.91		101.39	As-Pyrite
2013-P24	SITE 1 F	22.97		35.21				41.48		99.65	Arsenopyrite
2013-P24	SITE 1 G	23.01		35.46				42.21		100.68	Arsenopyrite
2013-P24	SITE 1 H	54.02		45.39				1.14		100.55	As-Pyrite
2013-P24	SITE 1 J	23.19		35.31				43.48		101.98	Arsenopyrite
2013-P24	SITE 1 K	40.89	0.33	59.13		0.57				100.92	Ni-Pyrite
2013-P24	SITE 1 L	54.66		46.50						101.16	Pyrite
2013-P24	SITE 1 M	22.46		35.27				41.87		99.60	Arsenopyrite
2013-P24	SITE 1 N	54.53		46.12						100.65	Pyrite
2013-P24	SITE 1 O	40.55	0.26	58.91		0.62				100.34	Ni-Pyrite
2013-P24	SITE 1 P	55.00		46.11				0.44		101.55	As-Pyrite
2013-P24	SITE 1 Q	22.29	0.56	34.35				42.24		99.45	Arsenopyrite
2013-P24	SITE 2 A	54.24		45.52				0.84		100.60	As-Pyrite
2013-P24	SITE 2 B	23.03		35.40				41.81		100.25	Arsenopyrite
2013-P24	SITE 2 C	53.78		45.66				1.13		100.58	As-Pyrite
2013-P24	SITE 2 D	23.19		35.16				41.02		99.38	Arsenopyrite
2013-P24	SITE 2 E	22.71		35.19				43.08		100.98	Arsenopyrite
2013-P24	SITE 2 F	54.90		46.65				1.07		102.62	As-Pyrite
2013-P24	SITE 2 G	22.88	0.29	34.96				42.29		100.42	Arsenopyrite
2013-P24	SITE 2 H	55.52		46.52				0.57		102.61	As-Pyrite
2013-P24	SITE 1 J	23.11		35.43				42.90		101.44	Arsenopyrite
2013-P24	SITE 2 K	23.07		35.50				42.84		101.40	Arsenopyrite
2013-P24	SITE 2 L	23.41		35.78				41.98		101.17	Arsenopyrite
2013-P24	SITE 2 M	22.85	0.82	35.51				41.46		100.64	Arsenopyrite

Appendix 5d: Pamao Deposit; Host lithologies and alteration EDS data

Table 1: Sample PB12-PM01

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Total	Min Name
							wt%						
PB12-PM01	SITE 1 A	104.34										104.34	Quartz
PB12-PM01	SITE 1 B	46.24	0.38	32.07	1.79		0.87		9.94	0.46		91.75	Al-celadonite
PB12-PM01	SITE 1 C							53.88			40.35	94.23	Fluoroapatite
PB12-PM01	SITE 1 D	103.62										103.62	Quartz
PB12-PM01	SITE 1 E	42.80	0.32	30.75	1.59		0.56		9.12	0.60		85.75	Al-celadonite
PB12-PM01	SITE 1 F				0.31			54.13	0.22		40.12	94.78	Fluoroapatite
PB12-PM01	SITE 1 G	103.55										103.55	Quartz
PB12-PM01	SITE 1 H	46.43	0.39	32.99	1.40		0.75		9.72	0.76		92.44	Al-celadonite
PB12-PM01	SITE 1 I							53.04			39.37	92.41	Fluoroapatite
PB12-PM01	SITE 2 A	103.75										103.75	Quartz
PB12-PM01	SITE 2 B	46.69	0.25	32.18	1.73		1.00		9.57	0.78		92.19	Al-celadonite
PB12-PM01	SITE 2 C				18.61	0.58	8.13	26.48				53.80	Ankerite
PB12-PM01	SITE 2 D	104.14										104.14	Quartz
PB12-PM01	SITE 2 E	46.85	0.31	32.38	1.99		0.88		9.48	0.68		92.57	Al-celadonite
PB12-PM01	SITE 2 F				16.42	0.55	9.76	26.39				53.12	Ankerite
PB12-PM01	SITE 3 A	103.47										103.47	Quartz
PB12-PM01	SITE 3 B							53.77			39.90	93.66	Fluoroapatite
PB12-PM01	SITE 3 C				16.80	0.60	9.81	26.75				53.96	Ankerite
PB12-PM01	SITE 3 D				11.14	0.74	12.27	28.31				52.46	Ankerite
PB12-PM01	SITE 3 E	71.16		19.23						12.62		103.01	Albite
PB12-PM01	SITE 3 F							55.38			40.15	95.54	Fluoroapatite
PB12-PM01	SITE 3 G				17.87	0.67	9.05	27.90				55.50	Ankerite
PB12-PM01	SITE 3 H				10.44	0.76	12.41	30.71				54.32	Ankerite
PB12-PM01	SITE 4 A	71.04		19.22						12.54		102.81	Albite
PB12-PM01	SITE 4 B	48.42	0.29	32.86	1.90		1.10		9.65	0.82		95.04	Al-celadonite
PB12-PM01	SITE 4 C							55.10			40.26	95.35	Fluoroapatite
PB12-PM01	SITE 4 D		96.98									96.98	Quartz
PB12-PM01	SITE 4 E	70.93		19.51						12.42		102.86	Albite
PB12-PM01	SITE 4 F	48.45	0.36	34.16	1.47		0.79		9.82	0.83		95.89	Al-celadonite
PB12-PM01	SITE 4 G							55.47			40.81	96.28	Fluoroapatite

Table 1: Sample PB12-PM01; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Total	Min Name
							wt%						
PB12-PM01	SITE 4 H		99.42									99.42	Quartz
PB12-PM01	SITE 5 A	70.90		19.39						12.53		102.82	Albite
PB12-PM01	SITE 5 B	49.93	0.35	31.40	1.50		0.85		9.27	0.67		93.96	Al-celadonite
PB12-PM01	SITE 5 C							55.09			40.74	95.83	Fluoroapatite
PB12-PM01	SITE 5 D	71.76		19.12						12.55		103.43	Albite
PB12-PM01	SITE 5 E	48.08	0.34	34.19	1.65		0.72		9.94	0.76		95.67	Al-celadonite
PB12-PM01	SITE 5 F							55.14			40.82	95.96	Fluoroapatite
PB12-PM01	SITE 5 G		99.33									99.33	Quartz
PB12-PM01	SITE 5 H	105.51										105.51	Quartz
PB12-PM01	SITE 5 I				18.02	0.49	9.19	27.59				55.28	Ankerite
PB12-PM01	SITE 5 J		98.96									98.96	Quartz
PB12-PM01	SITE 6 A	71.74		19.37						12.57		103.67	Albite
PB12-PM01	SITE 6 B							54.79			40.37	95.15	Fluoroapatite
PB12-PM01	SITE 6 C	48.00	0.38	33.99	1.61		0.73		9.66	0.83		95.20	Al-celadonite
PB12-PM01	SITE 6 D		98.70									98.70	Quartz
PB12-PM01	SITE 6 E	71.73		19.38						12.72		103.83	Albite
PB12-PM01	SITE 6 F							55.53			41.03	96.56	Fluoroapatite
PB12-PM01	SITE 6 G	47.98		33.60	1.66		0.86		9.85	0.84		94.79	Al-celadonite
PB12-PM01	SITE 6 H		99.37									99.37	Rutile

Table 2: Sample PB12-PM03

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	CoO	WO_3	Total	Min Name
								wt%							
PB12-PM03	SITE 1 A	104.30												104.30	Quartz
PB12-PM03	SITE 1 B				20.13	0.54	7.89	26.34						54.89	Ankerite
PB12-PM03	SITE 1 C	46.44		32.50	2.36		0.61		9.97	0.61				92.49	Al-celadonite
PB12-PM03	SITE 1 D				20.84	0.53	7.30	26.13						54.80	Ankerite
PB12-PM03	SITE 1 E	45.61		31.52	2.84		0.75		9.51	0.71				90.94	Al-celadonite
PB12-PM03	SITE 1 F	103.40												103.40	Quartz
PB12-PM03	SITE 1 G				21.05	0.55	7.00	26.37						54.97	Ankerite
PB12-PM03	SITE 1 H	47.98		32.28	2.82		0.75		9.91	0.63				94.38	Al-celadonite
PB12-PM03	SITE 1 I	43.62	0.33	29.27	2.44		0.80		9.66					86.13	Al-celadonite
PB12-PM03	SITE 1 J							54.15			39.41		1.90	96.13	Ca-phosphate
PB12-PM03	SITE 1 K	103.94												103.94	Quartz
PB12-PM03	SITE 1 L				20.61	0.49	6.79	26.07						53.96	Ankerite
PB12-PM03	SITE 1 M	24.19		21.15	37.65		5.93							88.91	Chlorite
PB12-PM03	SITE 1 N							54.11			40.06		1.78	95.95	Ca-phosphate
PB12-PM03	SITE 1 O	47.52		33.26	2.93		0.62		9.92	0.59				94.83	Al-celadonite
PB12-PM03	SITE 1 O2	21.89		19.87	36.89		5.39					0.15		84.20	Chlorite
PB12-PM03	SITE 1 P	23.33		20.61	37.19		6.03							87.17	Chlorite
PB12-PM03	SITE 1 Q				20.69	0.39	7.42	26.00						54.50	Ankerite
PB12-PM03	SITE 1 R				21.08	0.47	7.61	25.97						55.13	Ankerite
PB12-PM03	SITE 1 S				14.18	0.55	11.77	27.00						53.50	Ankerite
PB12-PM03	SITE 1 T	46.76	0.33	32.05	2.82		0.78		9.89	0.55				93.17	Al-celadonite
PB12-PM03	SITE 1 T2	21.53		19.39	36.90		5.53							83.35	Chlorite
PB12-PM03	SITE 1 U	23.10		20.48	37.47		5.89							86.93	Chlorite
PB12-PM03	SITE 1 V				20.44	0.45	7.43	26.41						54.73	Ankerite
PB12-PM03	SITE 1 W	47.15		33.07	2.85		0.72		9.78	0.69				94.26	Al-celadonite
PB12-PM03	SITE 1 X	23.70		21.36	37.72		6.08							88.86	Chlorite
PB12-PM03	SITE 1 Y				21.38	0.41	6.84	26.63						55.26	Ankerite
PB12-PM03	SITE 1 Z				21.41	0.36	7.06	26.44						55.27	Ankerite
PB12-PM03	SITE 2 A	104.89												104.89	Quartz

Table 2: Sample PB12-PM03; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	CoO	WO_3	Total	Min Name
								wt%							
PB12-PM03	SITE 2 B	46.79	0.32	31.71	2.83		0.81		9.72	0.71				92.90	Al-celadonite
PB12-PM03	SITE 2 C				21.33	0.57	7.14	26.32						55.36	Ankerite
PB12-PM03	SITE 2 D	103.81												103.81	Quartz
PB12-PM03	SITE 2 E	46.54		31.87	2.77		0.78		9.69	0.56				92.20	Al-celadonite
PB12-PM03	SITE 2 F				20.81	0.35	7.93	26.11						55.19	Ankerite
PB12-PM03	SITE 2 G	46.43	0.35	31.15	2.94		0.94		9.76	0.56				92.14	Al-celadonite
PB12-PM03	SITE 2 H			0.49	0.55			53.06			39.74		2.72	96.56	Ca-phosphate
PB12-PM03	SITE 2 I	45.76	0.31	31.13	2.98		0.90		9.83	0.46				91.38	Al-celadonite
PB12-PM03	SITE 2 J	23.03		20.56	36.65		5.59							85.83	Chlorite
PB12-PM03	SITE 2 K	47.39	0.47	32.00	2.90		0.79		10.38	0.44				94.36	Al-celadonite
PB12-PM03	SITE 2 L				21.20	0.43	7.72	25.99						55.33	Ankerite
PB12-PM03	SITE 2 M	23.65		20.99	36.64		5.90							87.18	Chlorite
PB12-PM03	SITE 2 N	103.64												103.64	Quartz
PB12-PM03	SITE 2 O				21.37	0.42	7.47	25.92						55.19	Ankerite
PB12-PM03	SITE 2 P	47.00	0.42	31.88	2.93		0.73		9.85	0.52				93.32	Al-celadonite
PB12-PM03	SITE 2 Q	23.07		20.64	36.45		5.62							85.78	Chlorite
PB12-PM03	SITE 2 R	47.59		33.21	3.05		0.75		9.89	0.71				95.20	Al-celadonite
PB12-PM03	SITE 2 S	22.97		20.65	37.16		5.91							86.69	Chlorite
PB12-PM03	SITE 2 T		52.44		46.06									98.50	rutile

Table 3: Sample PB12-PM07

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	V_2O_3	Cr_O	CoO	WO_3	Total	Min Name
								wt%								
PB12-PM07	SITE 1 A	70.18		19.47						12.13					101.78	albite
PB12-PM07	SITE 1 B				12.16	0.42	13.15	27.27							53.00	ankerite
PB12-PM07	SITE 1 C	48.40	0.33	31.35	1.64		1.50		9.86	0.56					93.65	Al-celadonite
PB12-PM07	SITE 1 D				12.02	0.34	12.75	27.61							52.72	ankerite
PB12-PM07	SITE 1 E	70.57		19.03						12.40					102.01	albite
PB12-PM07	SITE 1 F				12.30	0.37	13.28	28.21							54.16	ankerite
PB12-PM07	SITE 1 G				12.13	0.35	13.17	27.74							53.39	ankerite
PB12-PM07	SITE 1 H	48.64	0.33	30.44	1.89		1.77		9.43	0.45					92.94	Al-celadonite
PB12-PM07	SITE 1 I	71.27		19.39						12.45					103.11	albite
PB12-PM07	SITE 1 J	48.03	0.58	32.22	1.57		1.21		9.24	0.66	0.35	0.35			94.21	Al-celadonite
PB12-PM07	SITE 1 K		97.95		0.37						1.74			1.90	101.95	scheelite
PB12-PM07	SITE 1 L	48.08	0.33	33.31	1.46		0.86		9.28	0.72		0.39			94.43	Al-celadonite
PB12-PM07	SITE 1 M		98.72		0.41				0.20						99.33	rutile
PB12-PM07	SITE 1 N				12.42	0.33	13.12	27.86							53.74	ankerite
PB12-PM07	SITE 1 Q		100.70		0.35										101.05	rutile
PB12-PM07	SITE 1 S		101.07												101.07	rutile
PB12-PM07	SITE 1 U	1.03	94.61	0.74	0.60						1.87	0.55		2.96	102.36	scheelite
PB12-PM07	SITE 1 V		85.59		1.81			0.25			3.04	0.98		10.59	102.26	scheelite
PB12-PM07	SITE 2 A	72.07		19.77						12.74					104.58	albite
PB12-PM07	SITE 2 B	43.46	0.32	27.58	7.74		1.45		9.08	0.59					90.22	Al-celadonite
PB12-PM07	SITE 2 C				11.88	0.39	13.36	27.96							53.60	ankerite
PB12-PM07	SITE 2 D				10.65		14.32	27.68							53.35	ankerite
PB12-PM07	SITE 2 E				11.83		13.40	27.58							52.82	ankerite
PB12-PM07	SITE 2 F				13.09	0.52	12.84	27.86							54.31	ankerite
PB12-PM07	SITE 2 G	48.84	0.33	32.02	1.34		1.45		9.90	0.72		0.30			94.91	Al-celadonite
PB12-PM07	SITE 2 H				12.32	0.41	13.26	28.09							54.07	ankerite
PB12-PM07	SITE 2 I	49.25	0.28	31.25	1.54		1.65		10.19	0.58	0.36	0.50			95.58	Al-celadonite
PB12-PM07	SITE 2 J	71.27		19.37						12.54					103.18	albite
PB12-PM07	SITE 2 K	70.96		19.53						12.44					102.93	albite
PB12-PM07	SITE 2 L	47.42	0.49	31.97	1.64		1.11		9.32	0.42		0.34			92.71	Al-celadonite

Table 3: Sample PB12-PM07; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	V_2O_3	Cr_O	CoO	WO_3	Total	Min Name
								wt%								
PB12-PM07	SITE 2 M	2.91	93.95	2.37	0.82				0.54			0.53		1.74	102.86	scheelite
PB12-PM07	SITE 2 N		98.87		0.49							0.53		1.31	101.21	rutile
PB12-PM07	SITE 2 O	48.04	0.53	32.72	1.80		1.13		9.37	0.63		0.39			94.61	Al-celadonite
PB12-PM07	SITE 2 P	49.33	0.28	32.52	2.13		1.36		9.25	0.63	0.35				95.85	Al-celadonite
PB12-PM07	SITE 2 Q	46.73		30.85	6.24		1.66		9.24	0.46					103.25	albite
PB12-PM07	SITE 2 R	73.14		19.97	0.59					13.05					106.75	albite
PB12-PM07	SITE 3 A	71.01		19.66					0.35	12.37					103.40	albite
PB12-PM07	SITE 3 B				12.37	0.34	13.19	27.53							53.43	ankerite
PB12-PM07	SITE3 C	48.90	0.35	30.36	1.62		1.77		9.84	0.39	0.36	1.00			94.60	Al-celadonite
PB12-PM07	SITE 3 D				12.65	0.27	13.09	27.94							53.95	ankerite
PB12-PM07	SITE 3 E				8.70	0.35	15.46	28.12							52.63	ankerite
PB12-PM07	SITE 3 F	47.97	0.39	32.74	1.42		1.14		9.68	0.60		0.60			94.53	Al-celadonite
PB12-PM07	SITE 3 G				11.79	0.30	13.78	28.10							53.98	ankerite
PB12-PM07	SITE 3 H				12.05	0.37	13.08	28.10							53.60	ankerite
PB12-PM07	SITE 3 I	47.84		33.36	1.23		0.92		9.60	0.73		0.50			94.18	Al-celadonite
PB12-PM07	SITE 3 J				12.51	0.35	13.10	27.88							53.84	ankerite
PB12-PM07	SITE 3 K	51.78	0.45	31.03	1.46		1.26		8.98	1.78					96.74	Al-celadonite
PB12-PM07	SITE 3 L		98.83		0.44			0.99				0.54		1.41	102.21	rutile
PB12-PM07	SITE 2 M	71.50		19.65						12.53					103.68	albite
PB12-PM07	SITE 3 N	47.77	0.53	33.87	1.27		0.80		9.10	0.79					94.12	Al-celadonite
PB12-PM07	SITE 3 O		100.23		0.31				0.18						100.71	rutile
PB12-PM07	SITE 3 P	48.15	0.45	32.47	1.51		1.24		9.24	0.54	0.35	0.26			94.21	Al-celadonite
PB12-PM07	SITE 3 Q	47.92	0.49	33.21	1.44		1.05		9.29	0.74	0.36				94.50	Al-celadonite
PB12-PM07	SITE 3 R		99.58		0.35				0.18						100.11	rutile

Table 4: Sample PB12-PM08

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	WO_3	Total	Min Name
							wt%							
PB12-PM08	SITE 1 A	48.94	0.35	31.64	2.79		1.13		10.10	0.52			95.47	Al-celadonite
PB12-PM08	SITE 1 B	104.73											104.73	Quartz
PB12-PM08	SITE A C	46.99	0.28	33.24	2.74		0.59		9.98	0.54			94.37	Al-celadonite
PB12-PM08	SITE 1 D	71.07		19.07						12.37			102.50	Albite
PB12-PM08	SITE 1 D2	104.21											104.21	Quartz
PB12-PM08	SITE 1 E	23.51		21.15	37.17		6.09						87.91	Chlorite
PB12-PM08	SITE 2 A				12.73	0.52	12.85	27.41					53.51	Ankerite
PB12-PM08	SITE 2 B				20.49	0.52	7.92	26.13					55.06	Ankerite
PB12-PM08	SITE 2 C	105.12											105.12	Quartz
PB12-PM08	SITE 2 D				20.73	0.40	7.64	26.21					54.98	Ankerite
PB12-PM08	SITE 2 E	105.29											105.29	Quartz
PB12-PM08	SITE 3 A	105.62											105.62	Quartz
PB12-PM08	SITE 3 B				20.47	0.54	7.70	26.60					55.32	Ankerite
PB12-PM08	SITE 3 C				0.46			54.58			40.73	2.24	98.01	Fluoroapatite
PB12-PM08	SITE 3 D	48.30	0.31	32.47	2.56		0.88		9.83	0.64			94.99	Al-celadonite
PB12-PM08	SITE 3 E	105.22											105.22	Quartz
PB12-PM08	SITE 4 A	105.74											105.74	Quartz
PB12-PM08	SITE 4 B				21.09	0.48	7.79	26.49					55.84	Ankerite
PB12-PM08	SITE 4 C	44.72	0.27	31.34	2.99		0.61		9.26	0.66			89.85	Al-celadonite
PB12-PM08	SITE 4 D	23.32		21.21	38.21		5.16						87.90	Ankerite
PB12-PM08	SITE 4 E	47.53	0.42	32.09	2.86		0.82		10.00	0.34			94.05	Al-celadonite
PB12-PM08	SITE 4 F	46.85	0.36	31.74	2.82		0.83		9.76	0.52			92.89	Al-celadonite
PB12-PM08	SITE 4 G	23.03		19.60	37.34		5.90						85.86	Ankerite
PB12-PM08	SITE 4 H	104.97											104.97	Quartz
PB12-PM08	SITE 5 A	105.18											105.18	Quartz
PB12-PM08	SITE 5 B				21.36	0.45	7.61	26.23					55.65	Ankerite
PB12-PM08	SITE 5 C	23.05		20.84	37.63		5.95						87.46	Chlorite
PB12-PM08	SITE 5 D				0.31			54.64			41.03	1.96	97.95	Fluoroapatite
PB12-PM08	SITE 5 E	46.13		32.46	2.69		0.69		9.82	0.57			92.38	Al-celadonite
PB12-PM08	SITE 5 F				21.13	0.40	7.53	26.57					55.63	Ankerite

Table 4: Sample PB12-PM08; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	WO_3	Total	Min Name
							wt%							
PB12-PM08	SITE 5 G	70.63		19.25						12.35			102.22	Albite
PB12-PM08	SITE 5 G2	104.86											104.86	Quartz
PB12-PM08	SITE 6 A	74.25		18.56						11.38			104.19	Albite
PB12-PM08	SITE 6 A2	70.76		18.95						12.41			102.13	Albite
PB12-PM08	SITE 6 B	47.58	0.37	31.78	2.83		0.94		9.77	0.52			93.79	Al-celadonite
PB12-PM08	SITE 6 C	47.62		32.45	2.30		0.87		9.59	0.67			93.51	Al-celadonite
PB12-PM08	SITE 6 D		1.59					53.68			40.30	2.23	97.80	Fluoroapatite
PB12-PM08	SITE 6 E	23.59		21.06	37.04		5.84	0.44					87.97	Chlorite
PB12-PM08	SITE 6 F	71.10		19.17						12.37			102.64	Albite
PB12-PM08	SITE 6 G	23.20		20.92	37.07		6.01						87.20	Chlorite
PB12-PM08	SITE 6 H	46.30		31.85	2.63		0.66		9.74	0.53			91.71	Al-celadonite
PB12-PM08	SITE 7 A	105.49											105.49	Quartz
PB12-PM08	SITE 7 B				50.97	0.57	6.05	0.70					58.28	siderite
PB12-PM08	SITE 7 C	23.74		20.97	37.82		6.25						88.78	Chlorite
PB12-PM08	SITE 7 D				51.57	0.52	6.05	0.45					58.58	siderite
PB12-PM08	SITE 7 E	23.70		20.82	37.43		6.12						88.07	Chlorite
PB12-PM08	SITE 6 F	105.43											105.43	Quartz

Table 5: Sample PB12-PM10

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	CoO	Total	Min Name
							wt%						
PB12-PM10	SITE 1 A	106.13										106.13	quartz
PB12-PM10	SITE 1 B				21.81	0.59	6.93	27.00				56.33	ankerite
PB12-PM10	SITE 1 C	24.22		21.28	36.88		6.90					89.27	Chlorite
PB12-PM10	SITE 1 D	24.01		21.56	36.98		6.66				0.31	89.52	Chlorite
PB12-PM10	SITE 1 E				21.27	0.55	7.82	26.50				56.14	ankerite
PB12-PM10	SITE 1 F	23.75		21.24	36.98		6.64					88.61	Chlorite
PB12-PM10	SITE 1 G				20.61	0.47	8.20	27.14				56.42	ankerite
PB12-PM10	SITE 1 H				21.81	0.54	6.99	26.76				56.10	ankerite
PB12-PM10	SITE 1 I	105.95										105.95	quartz
PB12-PM10	SITE 1 J	106.21										106.21	quartz
PB12-PM10	SITE 1 K	23.88		21.25	36.29		6.50					87.91	Chlorite
PB12-PM10	SITE 1 L				21.30	0.54	7.54	26.70				56.08	ankerite
PB12-PM10	SITE 1 M	23.23		20.10	36.64		6.32					86.30	Chlorite
PB12-PM10	SITE 1 N				21.91	0.63	6.84	27.25				56.63	ankerite
PB12-PM10	SITE1 O				9.48	0.63	14.95	28.30				53.37	ankerite
PB12-PM10	SITE 1 P				20.09	0.58	8.80	27.07				57.99	ankerite
PB12-PM10	SITE 1 Q	23.53		21.72	37.20		6.34				0.22	89.01	Chlorite
PB12-PM10	SITE 1 R				21.43	0.61	7.59	26.50				56.13	ankerite
PB12-PM10	SITE 1 S	24.54		21.61	36.91		6.41					89.47	Chlorite
PB12-PM10	SITE 1 T		99.44		0.81							100.24	rutile
PB12-PM10	SITE 1 U	23.71		21.25	37.28		6.67				0.39	89.30	Chlorite
PB12-PM10	SITE 1 V	23.67		21.30	37.36		6.50					88.83	Chlorite
PB12-PM10	SITE 1 W	24.04		21.02	36.92		6.66					88.64	Chlorite
PB12-PM10	SITE 1 X				20.34	0.52	8.45	26.52				55.83	ankerite
PB12-PM10	SITE 1 Y	23.70		20.89	36.40		6.52					87.51	Chlorite
PB12-PM10	SITE 1 Z	24.13		21.42	36.88		6.42					88.85	Chlorite
PB12-PM10	SITE 2 A	102.88										102.88	quartz
PB12-PM10	SITE 2 D				21.78	0.59	7.69	28.00				58.06	ankerite
PB12-PM10	SITE 2 B				22.15	0.69	7.55	27.82				58.21	ankerite
PB12-PM10	SITE 2 C	24.87		22.49	37.94		6.86					92.15	Chlorite
PB12-PM10	SITE 2 E				22.11	0.66	7.53	27.56				57.87	ankerite
PB12-PM10	SITE 2 F		98.17		0.81			0.82				99.80	rutile
PB12-PM10	SITE 2 G	23.55		21.34	36.41		6.68					87.99	Chlorite
PB12-PM10	SITE 2 H	23.35		20.17	36.33		6.65					86.50	Chlorite
PB12-PM10	SITE 1 I	23.25		20.89	36.87		6.40				0.21	87.61	Chlorite
PB12-PM10	SITE 2 J				21.46	0.55	7.29	26.17				55.47	ankerite
PB12-PM10	SITE 2 K	23.77		20.30	36.84		6.61					87.52	Chlorite
PB12-PM10	SITE 2 L	9.89			19.33	0.59	6.53	23.37				59.71	ankerite
PB12-PM10	SITE 2 M	23.03		21.36	36.82		6.28				0.30	87.79	Chlorite

Table 5: Sample PB12-PM10; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	CoO	Total	Min Name
							wt%						
PB12-PM10	SITE 2 N	23.75		20.86	36.52		6.67				0.16	87.96	Chlorite
PB12-PM10	SITE 2 O				21.08	0.56	7.66	25.61				54.92	ankerite
PB12-PM10	SITE 2 P				20.98	0.56	7.59	25.97				55.10	ankerite
PB12-PM10	SITE 2 Q		97.48		0.92							98.40	rutile
PB12-PM10	SITE 2 R	23.18		21.07	36.57		6.43					87.25	Chlorite
PB12-PM10	SITE 2 S	23.37		20.75	36.38		6.35				0.15	87.00	Chlorite
PB12-PM10	SITE 2 T	23.70		20.87	36.88		6.49					87.93	Chlorite
PB12-PM10	SITE 2 U	48.15	0.31	32.98	2.98		0.96		9.83	0.67		95.88	Chlorite
PB12-PM10	SITE 2 V	23.45		21.36	36.45		6.43				0.22	87.92	Chlorite
PB12-PM10	SITE 2 W		97.56		1.25							98.81	rutile
PB12-PM10	SITE 2 X	23.70		20.96	36.78		6.37				0.10	87.89	Chlorite
PB12-PM10	SITE 2 Y	47.01	0.28	33.44	2.92		0.65		9.01	0.51		93.83	Chlorite
PB12-PM10	SITE 2 Z	23.33		20.69	36.65		6.51					87.17	Chlorite
PB12-PM10	SITE 3 A	71.66		19.87	0.32					12.67		104.52	albite
PB12-PM10	SITE 3 B				21.58	0.61	7.03	26.43				55.66	ankerite
PB12-PM10	SITE 3 C				20.22	0.49	7.89	27.03				55.63	ankerite
PB12-PM10	SITE 3 D	23.85		20.99	36.76		6.31					87.92	Chlorite
PB12-PM10	SITE 3 E	24.20		21.67	37.96		6.49					90.33	Chlorite
PB12-PM10	SITE 3 F				21.15	0.49	7.56	26.45				55.65	ankerite
PB12-PM10	SITE 3 G				21.23	0.46	7.55	26.54				55.78	ankerite
PB12-PM10	SITE 3 H	23.67		20.90	36.57		6.39					87.52	Chlorite
PB12-PM10	SITE 3 I				21.59	0.47	7.41	26.58				56.05	ankerite
PB12-PM10	SITE 3 J		84.13		2.92			5.15				92.20	rutile
PB12-PM10	SITE 3 K				20.35	0.46	7.89	26.90				55.60	ankerite
PB12-PM10	SITE 3 L	23.96		20.61	35.78		6.50					86.85	Chlorite
PB12-PM10	SITE 3 M	23.72		20.91	36.16		6.65					87.44	Chlorite
PB12-PM10	SITE 3 N	23.34		20.85	36.58		6.25					87.03	Chlorite
PB12-PM10	SITE 3 O				20.32	0.52	7.70	25.85				54.39	ankerite
PB12-PM10	SITE 3 P				21.38	0.59	7.17	26.06				55.19	ankerite
PB12-PM10	SITE 3 Q	23.86		21.16	36.20		6.61					87.83	Chlorite
PB12-PM10	SITE 3 R				20.77	0.60	7.26	25.78				54.40	ankerite
PB12-PM10	SITE 3 S	23.56		20.49	35.59		6.20					85.85	Chlorite

Table 6: Sample 2013-PM4

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Total	Min Name
							wt%						
2013-PM4	SITE 1 A	104.76										104.76	Quartz
2013-PM4	SITE 1 B	47.45	0.33	32.27	2.14		1.01		9.79	0.79		93.79	Al-celadonite
2013-PM4	SITE 1 C				15.89	1.18	9.46	26.16				52.68	ankerite
2013-PM4	SITE 1 D	23.72		20.62	34.58		7.17					86.10	Chlorite
2013-PM4	SITE 1 E	104.17										104.17	Quartz
2013-PM4	SITE 1 F	24.69		21.37	34.64		7.49					88.21	Chlorite
2013-PM4	SITE 1 G	46.32	0.37	30.98	2.61		1.08		9.19	0.64		91.19	Al-celadonite
2013-PM4	SITE 1 H	45.01	0.33	30.70	1.93		0.89		9.71	0.56		89.14	Chlorite
2013-PM4	SITE 1 I	70.15		19.29						12.03		101.48	albite
2013-PM4	SITE 1 J	47.38		33.39	1.70		0.72		9.77	0.62		93.59	Al-celadonite
2013-PM4	SITE 1 K	23.30		20.50	35.16		6.95					85.92	Chlorite
2013-PM4	SITE 1 L	48.21	0.31	31.65	2.08		1.21		9.95	0.55		93.96	Al-celadonite
2013-PM4	SITE 1 M				0.34		0.30	54.17			40.00	94.81	Ca-phosphate
2013-PM4	SITE 1 N	23.36		21.00	35.03		6.93					86.33	Chlorite
2013-PM4	SITE 1 O	47.07	0.28	33.30	1.90		0.82		9.86	0.60		93.83	Al-celadonite
2013-PM4	SITE 1 P	47.50	0.41	32.34	2.03		0.98		10.01	0.41		93.67	Al-celadonite
2013-PM4	SITE 1 Q		100.55		0.38							100.93	Quartz
2013-PM4	SITE 1 R	104.71										104.71	Quartz
2013-PM4	SITE 1 S				20.92	0.56	7.62	26.35				55.45	ankerite
2013-PM4	SITE 1 T	48.43	0.33	32.25	2.43		1.22		9.77	0.65		95.07	Al-celadonite
2013-PM4	SITE 1 U	46.91		32.90	1.94		0.79		10.00	0.58		93.12	Al-celadonite
2013-PM4	SITE 1 V				18.13	0.52	9.39	26.18				54.21	ankerite
2013-PM4	SITE 1 W	22.95		20.34	34.56		6.84					84.69	Chlorite
2013-PM4	SITE 1 X	49.07	0.37	34.01	1.99		0.85		9.72	0.72		96.73	Al-celadonite
2013-PM4	SITE 1 Y				19.94	0.51	8.49	26.32				55.25	ankerite
2013-PM4	SITE 1 Z				20.56	0.60	7.38	26.54				55.08	ankerite
2013-PM4	SITE 2 A	105.35										105.35	Quartz
2013-PM4	SITE 2 B				20.33	0.55	7.86	26.26				55.01	ankerite
2013-PM4	SITE 2 C				20.54	0.59	7.76	26.57				55.47	ankerite
2013-PM4	SITE 2 D	48.00	0.30	32.16	2.05		1.20		9.87	0.62		94.20	Al-celadonite
2013-PM4	SITE 2 E	105.55										105.55	Quartz
2013-PM4	SITE 2 F				20.38	0.62	7.78	26.34				55.13	ankerite
2013-PM4	SITE 2 G				18.33	0.49	9.26	26.48				54.55	ankerite
2013-PM4	SITE 2 H				19.58	0.67	8.38	26.84				55.47	ankerite

Table 6: Sample 2013-PM4; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Total	Min Name
							wt%						
2013-PM4	SITE 2 I	48.15		31.81	2.19		1.12		10.02	0.68		93.97	Al-celadonite
2013-PM4	SITE 2 J	52.41		35.72	1.95		1.17		10.03	0.69		101.98	Al-celadonite
2013-PM4	SITE 2 J2	48.40	0.45	33.76	1.79		0.80		9.80	0.55		95.55	Al-celadonite
2013-PM4	SITE 2 K		52.52		47.14							99.66	rutile
2013-PM4	SITE 2 L		100.63									100.63	rutile
2013-PM4	SITE 2 M	47.72	0.34	32.63	2.01		0.94		9.70	0.62		93.95	Al-celadonite
2013-PM4	SITE 2 N	23.85		21.14	34.90		7.05					86.95	Chlorite
2013-PM4	SITE 2 O		53.03		47.01							100.04	rutile
2013-PM4	SITE 2 P		53.08		47.24							100.32	rutile
2013-PM4	SITE 2 Q		52.71		46.51							99.22	rutile
2013-PM4	SITE 2 R	48.15	0.30	33.05	2.00		0.97		9.61	0.75		94.84	Al-celadonite
2013-PM4	SITE 2 S	24.14		21.48	35.14		7.14					87.90	Chlorite
2013-PM4	SITE 2 T	70.93		18.96						11.87		101.76	albite
2013-PM4	SITE 2 U	24.27		21.49	35.67		7.22					88.65	Chlorite
2013-PM4	SITE 2 V							54.98			40.90	95.89	Ca-phosphate
2013-PM4	SITE 2 W		52.59		46.31							98.91	rutile
2013-PM4	SITE X	47.43	0.32	32.73	1.96		0.94		9.92	0.60		93.90	Al-celadonite
2013-PM4	SITE 2 Y	24.96		21.51	34.73		8.03					89.23	Chlorite
2013-PM4	SITE 2 Z		53.12		46.98							100.10	rutile
2013-PM4	SITE 3 A	104.58										104.58	Quartz
2013-PM4	SITE 3 B				20.21	0.54	7.93	26.33				55.01	ankerite
2013-PM4	SITE 3 C	48.38		32.38	1.69		1.20		9.90	0.56		94.11	Al-celadonite
2013-PM4	SITE 3 D				20.46	0.57	7.37	26.53				54.94	ankerite
2013-PM4	SITE 3 E				20.66	0.64	7.56	26.26				55.12	ankerite
2013-PM4	SITE 3 F	46.94		31.97	2.78		1.13		9.19	0.49		92.50	Al-celadonite
2013-PM4	SITE 3 G				20.31	0.58	8.02	26.14				55.05	ankerite
2013-PM4	SITE 3 H				20.58	0.53	7.54	26.61				55.25	ankerite
2013-PM4	SITE 3 I	47.97		32.40	2.24		1.05		9.88	0.56		94.10	Al-celadonite
2013-PM4	SITE 3 J				19.95	0.63	7.68	26.11				54.37	ankerite
2013-PM4	SITE 3 K	48.93	0.40	32.74	2.01		1.13		9.89	0.38		95.49	Al-celadonite

Table 6: Sample 2013-PM4; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Total	Min Name
							wt%						
2013-PM4	SITE 3 L	47.92	0.34	31.95	2.17		1.10		9.52	0.65		93.66	Al-celadonite
2013-PM4	SITE 3 M	23.54		20.57	35.29		6.55					85.95	Chlorite
2013-PM4	SITE 3 N	46.76	0.29	32.36	1.60		0.70		9.70	0.59		91.99	Al-celadonite
2013-PM4	SITE 3 O	24.23		21.26	34.08		7.51		0.23			87.31	Chlorite
2013-PM4	SITE 3 P	48.05	0.36	32.63	2.31		0.98		9.74	0.52		94.58	Al-celadonite
2013-PM4	SITE 3 Q	46.97	0.37	31.56	1.79		1.02		9.70	0.45		91.85	Al-celadonite
2013-PM4	SITE 3 R				18.02	0.55	9.43	26.42				54.42	ankerite
2013-PM4	SITE 3 S	23.42		20.59	35.09		7.18					86.28	Chlorite
2013-PM4	SITE 3 T		52.66		47.15							99.81	rutile
2013-PM4	SITE 3 U	47.24	0.38	32.43	1.86		0.92		9.50	0.57		92.91	Al-celadonite
2013-PM4	SITE 3 V		52.20		46.40							98.60	rutile
2013-PM4	SITE 3 W	23.66		21.34	33.68		6.99		0.38			86.05	Chlorite
2013-PM4	SITE 3 X	47.75	0.29	31.73	1.83		1.08		9.75	0.58		93.00	Al-celadonite
2013-PM4	SITE 3 Y							54.58			40.24	94.83	Ca-phosphate
2013-PM4	SITE 3 Z		52.36		46.69							99.04	rutile

Table 7: Sample 2013-PM12

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	Cr_O	CoO	Total	Min Name
								wt%								
2013-PM12	SITE 1 A	71.46		19.61						12.21					103.28	albite
2013-PM12	SITE 1 A2	71.68		19.31						11.94					102.92	albite
2013-PM12	SITE 1 B				49.71	0.53	7.44	0.44							58.13	siderite
2013-PM12	SITE 1 C				22.40	0.39	7.05	26.29							56.12	ankerite
2013-PM12	SITE 1 D				50.00	0.58	7.54	0.62						0.36	59.10	siderite
2013-PM12	SITE 1 D2	49.02	0.48	32.68	2.67		0.77		9.29	0.97			0.31		96.21	Al-celadonite
2013-PM12	SITE 1 E				50.20	0.52	7.71	0.35							58.78	siderite
2013-PM12	SITE 1 F				21.55	0.37	7.68	26.61							56.22	Ankerite
2013-PM12	SITE 1 G				49.88	0.51	7.63	0.40						0.23	58.65	siderite
2013-PM12	SITE 1 H				21.60	0.28	7.43	26.17							55.49	Ankerite
2013-PM12	SITE 1 I				0.39			55.40			41.39	1.94			99.12	Ca-phosphate
2013-PM12	SITE 1 J				48.76	0.54	8.55	0.35						0.21	58.41	siderite
2013-PM12	SITE 1 K	71.04		19.19						12.46					102.69	albite
2013-PM12	SITE 1 L				50.00	0.47	7.66	0.38						0.35	58.86	siderite
2013-PM12	SITE 1 M				48.96	0.54	8.76	0.43						0.30	58.99	siderite
2013-PM12	SITE 1 N	23.92		20.96	36.99		6.38								88.25	Chlorite
2013-PM12	SITE 1 O				49.75	0.40	7.67	0.25						0.35	58.43	siderite
2013-PM12	SITE 1 P	23.73		21.06	36.82		6.62								88.22	Chlorite
2013-PM12	SITE 1 Q	46.38		33.85	2.66		0.49		9.35	0.72					93.43	Al-celadonite
2013-PM12	SITE 1 R	47.52	0.40	32.98	2.76		0.79		9.52	0.80					94.77	Al-celadonite
2013-PM12	SITE 1 S	71.52		19.37						11.98					102.87	albite
2013-PM12	SITE 1 T				48.19	0.66	8.79	0.40						0.32	58.36	siderite
2013-PM12	SITE 1 U	23.56		21.07	36.41		6.41							0.24	87.69	Chlorite
2013-PM12	SITE 1 V	48.37	0.34	34.10	2.28		0.54		9.46	0.81					95.90	Al-celadonite
2013-PM12	SITE 1 W	47.50	0.30	33.11	2.52		0.68		9.25	0.83					94.19	Al-celadonite
2013-PM12	SITE 1 X	23.21		20.59	36.45		6.35								86.59	Chlorite
2013-PM12	SITE 1 Y	48.97	0.38	32.43	2.89		1.05		9.38	0.56					95.65	Al-celadonite
2013-PM12	SITE 1 Z	21.49		19.68	36.56		5.59								83.32	Chlorite
2013-PM12	SITE 2 A	71.36		19.20	0.33					12.09					102.97	albite
2013-PM12	SITE 2 B				49.32	0.47	7.48	0.42						0.27	57.96	siderite
2013-PM12	SITE 2 C				48.92	0.54	7.91	0.40						0.32	58.10	siderite
2013-PM12	SITE 2 D	105.16													105.16	Quartz
2013-PM12	SITE 1 E				48.75	0.43	8.37	0.38						0.19	58.12	siderite
2013-PM12	SITE 2 F				20.35	0.29	8.37	26.61							55.63	Ankerite
2013-PM12	SITE 2 G				49.28	0.44	7.83	0.33						0.43	58.32	siderite
2013-PM12	SITE 2 H				19.95		8.58	26.29							54.82	Ankerite

Table 7: Sample 2013-PM12; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	Cr_O	CoO	Total	Min Name
								wt%								
2013-PM12	SITE 2 I		52.67		46.75										99.42	rutile
2013-PM12	SITE 2 J	47.19		32.55	2.58		0.80		9.37	0.58					93.07	Al-celadonite
2013-PM12	SITE 2 J2	23.08		21.12	36.12		6.43								87.50	Chlorite
2013-PM12	SITE 2 K	22.64		20.70	36.68		6.06								86.08	Chlorite
2013-PM12	SITE 2 L	37.25	0.93	30.14	12.14		4.45			2.51					87.41	Chlorite
2013-PM12	SITE 2 M	47.46		34.06	2.36		0.63		9.30	0.87					94.69	Al-celadonite
2013-PM12	SITE 2 N	24.03		21.60	36.16		6.50								88.28	Chlorite
2013-PM12	SITE 2 O		52.17		46.63										98.80	rutile
2013-PM12	SITE 2 P	47.98		32.44	2.44		0.99		9.33	0.71					93.89	Al-celadonite
2013-PM12	SITE 2 Q	24.47		22.38	36.22		6.61		0.26						89.93	Chlorite
2013-PM12	SITE 3 A	106.00													106.00	Quartz
2013-PM12	SITE 3 B				47.65	0.46	8.74	0.67						0.24	57.77	siderite
2013-PM12	SITE 3 C	24.40		21.79	36.93		7.21							0.15	90.48	Chlorite
2013-PM12	SITE 3 D	47.37	0.33	33.52	2.46		0.67		9.33	0.67					94.36	Al-celadonite
2013-PM12	SITE 3 E				49.56	0.43	7.64	0.37						0.44	58.44	siderite
2013-PM12	SITE 3 F	103.64													103.64	Quartz
2013-PM12	SITE 3 G	53.98	0.35	30.69	2.73		0.94		9.06	0.57					98.31	Al-celadonite
2013-PM12	SITE 3 H				20.96	0.27	7.73	26.08							55.04	ankerite
2013-PM12	SITE 3 H2				47.29	0.49	9.06	0.47						0.22	57.53	siderite
2013-PM12	SITE 3 I				49.31	0.44	7.63	0.28						0.33	57.98	siderite
2013-PM12	SITE 3 J	71.13		19.44						11.99					102.56	albite
2013-PM12	SITE 3 K	23.79		21.61	36.07		6.35		0.23						88.04	Chlorite
2013-PM12	SITE 3 L	48.37	0.32	34.02	2.44		0.64		9.10	0.71					95.58	Al-celadonite
2013-PM12	SITE 3 M	23.39		21.30	37.42		5.98								88.09	Chlorite
2013-PM12	SITE 3 N	47.93	0.44	31.89	3.16		1.06		9.03	0.55					94.07	Al-celadonite
2013-PM12	SITE 3 O	47.49	0.44	33.94	2.40		0.65		9.32	0.62					94.85	Al-celadonite
2013-PM12	SITE 3 P	22.83		20.86	36.71		6.59								86.99	Chlorite
2013-PM12	SITE 3 P2	41.74	0.35	29.29	7.21		1.18		7.63	0.70					88.11	Al-celadonite
2013-PM12	SITE 3 Q	23.65		21.27	36.75		6.44								88.11	Chlorite
2013-PM12	SITE 3 R	24.51		21.71	36.73		6.71								89.67	Chlorite
2013-PM12	SITE 3 S	47.40	0.40	32.36	2.65		0.92		9.21	0.76					93.70	Al-celadonite
2013-PM12	SITE 4 A	70.55		19.19	0.94					12.45					103.13	albite
2013-PM12	SITE 4 B				49.93	0.64	7.50	0.33							58.40	siderite

Table 7: Sample 2013-PM12; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	V_2O_3	Cr_O	CoO	Total	Min Name
								wt%								
2013-PM12	SITE 4 C				22.65	0.26	7.15	26.42							56.49	Ankerite
2013-PM12	SITE 4 D				50.27	0.58	7.58	0.38						0.34	59.16	siderite
2013-PM12	SITE 4 E				21.70	0.28	7.69	26.50							56.18	Ankerite
2013-PM12	SITE 4 F	48.40		31.68	3.00		1.02		9.78	0.76					94.64	Al-celadonite
2013-PM12	SITE 4 G				50.17	0.49	7.63	0.41						0.28	58.98	siderite
2013-PM12	SITE 4 H				48.85	0.63	8.47	0.46						0.28	58.70	siderite
2013-PM12	SITE 4 I				21.64	0.33	7.73	26.63							56.33	Ankerite
2013-PM12	SITE 4 J	70.98		19.36						12.41					102.75	albite
2013-PM12	SITE 4 K	70.56		19.32						12.12					101.99	albite
2013-PM12	SITE 4 L	46.95	0.32	33.31	2.36		0.55		9.33	0.97					93.81	Al-celadonite
2013-PM12	SITE 4 M	23.51		21.56	36.68		6.18								87.93	Chlorite
2013-PM12	SITE 4 N				0.33			54.35			40.66	1.94			97.29	Ca-phosphate
2013-PM12	SITE 4 O	70.82		19.32	0.32					12.31					102.78	albite
2013-PM12	SITE 4 P	46.96	0.38	33.24	2.26		0.54		9.45	0.86					93.70	Al-celadonite
2013-PM12	SITE 4 Q	23.22		21.08	36.14		6.04								86.48	Chlorite
2013-PM12	SITE 4 R	23.63		21.31	36.94		6.45								88.33	Chlorite
2013-PM12	SITE 4 S	46.92	0.42	32.97	2.08		0.63		9.62	0.55					93.21	Al-celadonite
2013-PM12	SITE 4 T	48.88	0.46	34.93	2.37		0.58		9.55	1.04					97.80	Al-celadonite

Table 8: Sample 2013-PM31

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Total	Min Name
							wt%						
2013-PM31	SITE 1 A	104.14										104.14	Quartz
2013-PM31	SITE 1 B				53.95		1.32	2.10				57.37	siderite
2013-PM31	SITE 1 C				22.88	0.34	6.35	26.20				55.77	ankerite
2013-PM31	SITE 1 D				53.06	0.52	1.45	2.65				57.67	siderite
2013-PM31	SITE 1 E							53.53			38.96	92.50	Ca-phosphate
2013-PM31	SITE 1 F				22.23	0.42	6.18	25.83				54.66	ankerite
2013-PM31	SITE 1 F2				53.14	0.47	1.31	2.86				57.78	siderite
2013-PM31	SITE 1 G				53.72	0.50	1.15	1.83				57.20	siderite
2013-PM31	SITE 1 H				18.94	0.35	8.94	26.18				54.41	ankerite
2013-PM31	SITE 1 I	104.50										104.50	Quartz
2013-PM31	SITE 1 J				52.57		0.80	3.40				56.77	siderite
2013-PM31	SITE 1 K				20.79	0.27	8.02	26.15				55.23	ankerite
2013-PM31	SITE 1 L	104.54			0.45							104.99	Quartz
2013-PM31	SITE 1 M	23.43		20.69	37.88		5.27					87.28	Chlorite
2013-PM31	SITE 1 N				54.00	0.28	1.10	1.72				57.10	siderite
2013-PM31	SITE 1 O	23.18		21.18	37.63		5.25					87.24	Chlorite
2013-PM31	SITE 1 P							54.21			40.36	94.57	Ca-phosphate
2013-PM31	SITE 1 Q				55.18		0.78	1.52				57.48	siderite
2013-PM31	SITE 1 R	23.31		21.32	38.37		5.39					88.40	Chlorite
2013-PM31	SITE 1 S				52.64		0.93	3.53				57.10	siderite
2013-PM31	SITE 1 T	23.62		21.08	37.89		5.54					88.13	Chlorite
2013-PM31	SITE 1 U				53.40		0.83	2.87				57.10	siderite
2013-PM31	SITE 1 V				53.15	0.47	0.91	2.86				57.39	siderite
2013-PM31	SITE 1 W	103.92										103.92	Quartz
2013-PM31	SITE 2 A	104.08										104.08	Quartz
2013-PM31	SITE 2 B	23.00		21.55	37.70		5.24					87.50	Chlorite
2013-PM31	SITE 2 C				53.20		0.99	2.99				57.18	siderite
2013-PM31	SITE 2 D				52.93	0.35	0.96	2.71				56.94	siderite
2013-PM31	SITE 2 E	22.11		20.73	37.64		4.94					85.42	Chlorite
2013-PM31	SITE 2 F				53.44	0.54	1.00	2.37				57.35	siderite
2013-PM31	SITE 2 G				19.24		8.99	26.40				54.63	ankerite
2013-PM31	SITE 2 H				52.33	0.35	0.91	2.90				56.49	siderite
2013-PM31	SITE 2 I				53.61	0.34	1.03	1.97				56.94	siderite
2013-PM31	SITE 2 J				22.69	0.37	6.22	26.02				55.30	ankerite
2013-PM31	SITE 2 K				54.55	0.48	1.20	1.10				57.33	siderite
2013-PM31	SITE 2 L				53.93	0.51	2.21	1.42				58.07	siderite
2013-PM31	SITE 2 M				52.47	0.35	1.12	2.76				56.71	siderite

Table 8: Sample 2013-PM31; Continued

Sample	Spectrum	SiO_2	TiO_2	Al_2O_3	FeO	MnO	MgO	CaO	K_2O	Na_2O	P_2O_5	Total	Min Name
						wt%							
2013-PM31	SITE 2 N				22.15	0.80	6.42	25.87				55.24	ankerite
2013-PM31	SITE 2 O				53.81		0.96	2.87				57.64	siderite
2013-PM31	SITE 2 P	22.56		21.05	38.24		5.05					86.91	Chlorite
2013-PM31	SITE 2 Q				53.24	0.42	1.05	3.13				57.84	siderite
2013-PM31	SITE R	23.82		20.91	38.08		5.49					88.30	Chlorite
2013-PM31	SITE 2 S	23.32		21.66	38.41		5.23					88.62	Chlorite
2013-PM31	SITE 2 T				56.25	0.29	1.26	0.59				58.39	siderite
2013-PM31	SITE 2 U							54.60			40.63	95.23	Ca-phosphate
2013-PM31	SITE 2 V	23.16		21.64	38.23		5.30					88.34	Chlorite
2013-PM31	SITE 2 W				53.87		0.80	3.10				57.77	siderite
2013-PM31	SITE 2 X	22.94		21.56	38.15		5.13					87.78	Chlorite
2013-PM31	SITE 2 Y				53.39		0.85	3.26				57.51	siderite
2013-PM31	SITE 3 A	104.43										104.43	Quartz
2013-PM31	SITE 3 B	23.36		20.78	38.18		4.86					87.18	Chlorite
2013-PM31	SITE 3 C				50.73	0.58	5.91	0.44				57.66	siderite
2013-PM31	SITE 3 D				52.75	0.58	2.72	1.57				57.62	siderite
2013-PM31	SITE 3 E				53.36	0.27	1.07	3.08				57.77	siderite
2013-PM31	SITE 3 F				20.62	0.32	8.15	26.15				55.25	ankerite
2013-PM31	SITE 3 G	22.88		21.54	37.98		5.13					87.52	Chlorite
2013-PM31	SITE 3 H	21.96		20.99	38.31		4.98					86.24	Chlorite
2013-PM31	SITE 3 I				54.17		1.20	3.12				58.50	siderite
2013-PM31	SITE 3 J	23.38		21.28	38.50		5.43					88.59	Chlorite
2013-PM31	SITE 3 K				54.06		0.90	2.80				57.76	siderite
2013-PM31	SITE 3 L	23.05		21.31	38.68		5.12					88.17	Chlorite
2013-PM31	SITE 3 M				55.14		1.06	1.71				57.91	siderite
2013-PM31	SITE 3 N				49.43	1.33	6.94	0.40				58.09	siderite
2013-PM31	SITE 3 O	22.70		21.17	38.19		5.22					87.27	Chlorite
2013-PM31	SITE 3 P				52.70		1.23	3.70				57.62	siderite
2013-PM31	SITE 3 Q	22.50		21.66	38.04		4.90					87.10	Chlorite
2013-PM31	SITE 3 R	105.47			0.34							105.81	Quartz
2013-PM31	SITE 3 S	23.53		20.96	37.72		5.55					87.76	Chlorite
2013-PM31	SITE 3 T	23.32		21.11	37.93		5.35					87.71	Chlorite
2013-PM31	SITE 3 U	22.70		21.09	37.83		5.36					86.98	Chlorite
2013-PM31	SITE 3 V	23.35		21.41	37.84		5.42					88.01	Chlorite
2013-PM31	SITE 3 W				53.01		0.93	3.42				57.36	siderite
2013-PM31	SITE 3 X	23.02		20.17	37.88		5.12					86.19	Chlorite
2013-PM31	SITE 3 Y	23.29		20.97	38.40		5.26					87.92	Chlorite
2013-PM31	SITE 3 Z	22.62		20.93	37.82		5.29					86.65	Chlorite

Appendix 6a: Karagba-Chaffeur-Durba deposit; U-Pb Monazite data

Table 1; Sample PB12-D05

						Data for Tera-Wasserberg plot						Ages							
Sample	Analysis	Th/U	Pb (ppm)	Th (ppm)	U (ppm)	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	Cor.Th-Pb Age	2σ [Ma]	Cor. $^{206}Pb/^{238}U$ age	2σ[Ma]
PB12-D05	05_01	84.98	157.00	6714.22	79.01	9.62	3.45	0.17	2.64	2541.86	44.28	637.82	41.78	1246.72	60.56	567.97	43.88	552.88	31.93
PB12-D05	05_02	172.35	162.49	7638.04	44.32	11.49	3.66	0.07	3.09	874.41	64.01	537.99	37.63	606.93	42.83	543.95	38.01	525.90	36.73
PB12-D05	05_05	171.26	149.08	6747.10	39.40	10.95	4.32	0.09	8.25	1409.27	157.87	563.13	46.37	764.26	95.36	541.70	46.28	537.02	43.17
PB12-D05	05_06	354.66	519.15	24243.46	68.36	12.42	3.41	0.08	2.58	1092.30	51.75	499.08	32.69	620.22	38.97	549.82	33.53	475.93	31.22
PB12-D05	05_08	216.33	317.36	14068.52	65.03	11.89	3.77	0.07	3.49	887.21	72.04	520.46	37.63	594.09	45.19	551.44	37.59	506.49	36.65
PB12-D05	05_09	256.70	180.84	7912.53	30.82	11.25	3.93	0.07	3.64	935.08	74.62	548.94	41.27	630.30	49.12	566.29	39.24	532.70	40.11
PB12-D05	05_10	216.86	314.43	13970.46	64.42	11.48	3.58	0.07	3.17	1023.18	64.06	538.45	36.93	641.22	44.48	544.62	34.97	521.51	35.59
PB12-D05	05_11	190.33	192.65	9174.94	48.21	10.62	3.97	0.12	3.21	1887.76	57.80	579.88	43.84	929.69	60.32	524.88	36.07	534.51	38.20
PB12-D05	05_14	288.83	417.48	20154.51	69.78	10.45	4.85	0.21	9.75	2942.30	157.54	589.23	54.37	1364.51	151.58	521.11	31.84	468.81	39.91
PB12-D05	05_16	122.91	168.49	7650.86	62.25	8.50	4.78	0.28	8.00	3364.42	124.82	717.24	64.57	1739.38	144.31	541.07	34.91	525.12	41.55
PB12-D05	05_17	116.04	174.04	8115.78	69.94	11.94	2.78	0.07	3.01	783.44	63.21	518.28	27.67	570.09	35.15	539.68	36.28	509.79	27.17
PB12-D05	05_18	207.89	215.02	10838.02	52.13	12.29	3.80	0.16	3.58	2438.48	60.65	504.31	36.72	1036.79	65.63	502.03	30.69	435.58	28.54
PB12-D05	05_19	110.24	92.06	4080.44	37.01	11.73	3.74	0.08	4.51	1107.76	90.10	527.40	37.74	651.00	54.78	530.51	50.58	512.08	36.09
PB12-D05	05_20	157.85	364.28	16344.16	103.54	9.45	3.69	0.19	7.38	2765.21	121.05	648.48	45.35	1358.30	116.56	534.99	36.87	540.81	34.57
PB12-D05	05_02	250.46	316.48	14469.27	57.77	12.06	3.46	0.07	2.73	936.43	55.89	513.58	34.06	598.63	39.07	542.94	33.64	497.39	33.02
PB12-D05	05_04	169.92	392.10	17582.79	103.48	11.80	2.97	0.09	4.13	1456.77	78.60	524.32	29.88	737.95	52.06	544.66	31.36	497.50	27.56
PB12-D05	05_08	236.19	286.37	12906.38	54.65	10.86	3.83	0.08	3.58	1096.34	71.66	567.98	41.54	686.06	51.01	545.79	39.01	548.58	39.86
PB12-D05	05_16	157.65	313.07	14668.25	93.05	12.04	2.82	0.06	2.38	735.10	50.48	514.53	27.85	556.91	31.19	532.71	32.99	505.52	27.43

Table 2: Sample PB12-D10

						Data for Tera-Wasserberg plot						Ages							
Sample	Analysis	Th/U	Pb (ppm)	Th (ppm)	U (ppm)	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	Cor.Th-Pb Age	2σ [Ma]	Cor. $^{206}Pb/^{238}U$ age	2σ[Ma]
PB12-D10	10_01	104.03	398.61	15555.38	149.52	10.66	1.92	0.08	3.05	1122.89	60.77	578.26	21.24	702.17	35.90	627.18	26.37	562.64	20.36
PB12-D10	10_02	93.90	364.07	15158.55	161.43	10.73	2.10	0.08	1.50	1085.41	30.16	574.27	23.01	689.09	25.50	562.37	22.39	559.98	22.11
PB12-D10	10_03	119.87	390.89	16445.89	137.20	9.49	2.54	0.21	2.93	2932.23	47.36	646.09	31.19	1433.12	57.89	558.56	24.50	523.60	21.55
PB12-D10	10_04	169.88	738.77	28643.11	168.61	10.21	2.02	0.19	6.30	2751.06	103.46	602.09	23.21	1294.26	92.41	600.33	21.01	501.28	19.29
PB12-D10	10_05	20.76	63.24	2166.33	104.33	10.75	1.93	0.08	1.95	1139.43	38.75	573.48	21.17	701.98	27.44	615.19	55.76	560.24	20.25
PB12-D10	10_06	10.02	97.59	2858.87	285.31	10.90	1.91	0.08	1.61	1188.43	31.78	565.94	20.71	707.52	25.17	674.94	52.39	551.76	19.70
PB12-D10	10_07	190.17	420.24	18161.68	95.50	9.55	2.08	0.26	2.46	3275.44	38.64	641.72	25.39	1596.91	50.57	558.28	21.57	476.94	15.55
PB12-D10	10_01	34.71	153.12	5307.63	152.92	10.34	1.79	0.09	1.97	1396.94	37.72	595.14	20.28	792.17	28.82	675.50	44.82	573.58	18.92
PB12-D10	10_02	32.08	189.90	6236.65	194.42	10.30	1.73	0.06	1.72	669.42	36.79	597.43	19.67	612.47	22.17	693.02	38.06	595.07	19.57
PB12-D10	10_02c	19.72	104.83	3388.76	171.83	10.59	1.99	0.07	2.04	933.66	41.76	581.73	22.08	658.88	27.21	628.76	55.37	573.74	21.51
PB12-D10	10_03	178.45	451.69	20134.18	112.83	11.64	2.38	0.14	2.44	2196.00	42.43	531.25	24.25	981.04	42.03	549.28	19.35	474.37	19.95

Table 3: Sample PB12-D12

						Data for Tera-Wasserberg plot						Ages							
Sample	Analysis	Th/U	Pb (ppm)	Th (ppm)	U (ppm)	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	Cor.Th-Pb Age	2σ [Ma]	Cor. $^{206}Pb/^{238}U$ age	2σ[Ma]
PB12-D12	12b_01	132.85	404.47	16357.42	123.13	10.95	2.10	0.08	1.64	1244.07	32.07	563.48	22.61	719.69	27.08	584.69	25.45	543.61	21.37
PB12-D12	12b_02	179.48	645.11	25379.10	141.40	10.82	2.05	0.09	1.68	1474.18	31.81	569.77	22.36	789.39	28.69	607.93	25.14	541.15	20.62
PB12-D12	12b_04	164.02	499.69	20461.21	124.75	11.67	2.61	0.09	2.39	1431.96	45.55	529.95	26.46	736.95	36.37	597.48	29.12	503.97	24.45
PB12-D12	12b_05	111.76	573.00	23566.39	210.86	10.71	1.98	0.15	4.17	2366.34	71.13	575.69	21.77	1099.94	60.17	562.72	26.21	507.89	17.83
PB12-D12	12b_06	129.90	673.50	29638.69	228.17	11.38	1.80	0.09	2.45	1506.60	46.27	543.03	18.72	771.40	32.33	555.95	21.37	515.59	17.19
PB12-D12	12b_07	112.58	480.57	20451.03	181.66	8.99	2.00	0.26	3.62	3232.94	57.16	680.13	25.82	1624.50	65.00	537.07	24.41	515.78	17.49
PB12-D12	12b_08	204.38	557.56	23381.60	114.40	8.86	2.54	0.28	3.86	3338.97	60.36	689.08	33.18	1690.91	73.40	576.78	23.06	504.42	20.90
PB12-D12	12b_01b	79.05	571.77	23288.32	294.59	10.63	1.47	0.08	1.42	1094.18	28.37	579.65	16.27	696.18	20.36	580.23	23.87	565.63	15.63
PB12-D12	12b_01c	45.98	546.35	20974.37	456.17	10.86	1.41	0.07	1.15	864.75	23.92	567.90	15.30	630.93	16.97	607.68	21.64	560.51	14.98
PB12-D12	12b_02b	65.63	509.33	21286.10	324.35	10.92	1.53	0.08	1.62	1307.61	31.47	564.79	16.49	737.90	23.09	556.79	20.72	545.35	15.49
PB12-D12	12a_02	61.67	244.65	8672.13	140.62	10.09	1.90	0.08	1.82	1145.96	36.22	609.28	22.07	736.32	27.22	671.71	33.21	594.43	21.15

Table 4: Sample 2013-D39

						Data for Tera-Wasserberg plot						Ages							
Sample	Analysis	Th/U	Pb (ppm)	Th (ppm)	U (ppm)	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	Cor.Th-Pb Age	2σ [Ma]	Cor. $^{206}Pb/^{238}U$ age	2σ[Ma]
2013-D39	39_01	167.48	272.37	11629.86	69.44	10.80	3.45	0.15	2.59	2310.12	44.40	570.73	37.59	1071.99	55.57	604.00	41.26	504.85	30.19
2013-D39	39_02	163.22	329.07	14835.79	90.90	12.11	3.44	0.08	1.89	1306.13	36.72	511.60	33.78	684.80	38.40	565.08	36.18	489.55	31.61
2013-D39	39_03	36.53	109.55	3800.15	104.04	10.60	3.16	0.06	2.13	581.86	46.30	580.90	35.05	580.90	33.20	683.32	51.89	579.82	35.04
2013-D39	39_04	13.48	50.31	1747.62	129.66	11.32	2.78	0.07	3.25	881.55	67.22	545.72	29.06	615.34	38.74	612.77	67.05	538.90	28.37
2013-D39	39_05	60.34	113.37	4847.83	80.35	10.51	3.44	0.12	3.31	1966.90	59.06	586.08	38.44	963.74	57.77	596.75	49.92	541.18	33.11
2013-D39	39_07	313.66	510.78	22644.23	72.19	8.06	6.47	0.23	9.95	3028.68	159.49	754.36	91.51	1609.13	175.51	590.60	37.96	597.12	63.87
2013-D39	39_10	78.73	162.49	6670.72	84.72	10.17	3.34	0.11	2.93	1864.67	52.85	604.81	38.47	948.85	53.36	592.79	43.56	563.22	33.73
2013-D39	39_11	93.33	316.98	12606.93	135.08	10.88	2.75	0.08	2.02	1072.83	40.64	566.65	29.79	679.02	33.28	616.13	37.56	552.70	28.65
2013-D39	39_01	187.06	264.27	10646.25	56.91	10.21	3.53	0.18	2.90	2681.14	47.95	602.16	40.47	1263.51	63.98	624.28	36.60	506.58	29.68
2013-D39	39_02	97.31	212.37	8273.34	85.02	8.02	3.89	0.29	4.30	3434.49	66.81	757.62	55.34	1825.86	93.78	586.10	41.42	545.24	31.80
2013-D39	39_04	57.20	211.07	9500.53	166.11	11.49	2.87	0.07	1.68	827.91	35.12	537.81	29.53	596.61	29.57	549.98	36.72	530.59	28.93

Table 5: Sample 2013-D57

						Data for Tera-Wasserberg plot					Ages								
Sample	Analysis	Th/U	Pb (ppm)	Th (ppm)	U (ppm)	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	Cor.Th-Pb Age	2σ [Ma]	Cor. $^{206}Pb/^{238}U$ age	2σ[Ma]
2013-D57	57_01	42.20	93.87	3505.04	83.06	9.64	3.46	0.09	7.54	1397.11	144.60	636.47	41.85	832.00	90.00	626.27	52.61	614.18	39.25
2013-D57	57_02	201.95	547.39	23957.34	118.63	10.96	3.11	0.08	1.62	1198.46	31.98	562.83	33.46	707.00	35.00	593.68	35.41	541.88	31.77
2013-D57	57_03	148.68	318.54	12818.84	86.22	9.04	3.35	0.17	6.50	2525.15	109.21	676.17	42.83	1284.00	101.00	646.03	40.48	586.59	34.15
2013-D57	57_04	206.28	521.28	22741.30	110.25	10.43	3.01	0.13	4.53	2147.17	79.06	590.40	33.93	1034.00	68.00	601.48	35.57	531.05	28.49
2013-D57	57_05	132.98	170.74	7301.12	54.90	10.48	3.70	0.07	3.10	1062.90	62.36	587.63	41.46	696.00	48.00	592.96	46.42	572.62	39.96
2013-D57	57_07	214.29	637.69	26111.12	121.85	10.37	2.83	0.09	1.99	1444.41	37.97	593.43	32.05	804.00	38.00	629.15	39.15	564.23	29.71
2013-D57	57_08	228.81	624.93	28617.52	125.07	10.72	2.64	0.16	2.45	2472.79	41.33	574.83	29.02	1141.00	48.00	576.02	34.43	496.23	22.50
2013-D57	57_09	166.14	463.55	19101.59	114.97	10.66	3.24	0.08	3.03	1185.17	59.88	577.89	35.72	718.00	45.00	625.69	38.49	558.46	34.01
2013-D57	57_10	45.34	113.74	4153.62	91.61	7.54	6.47	0.24	12.92	3095.25	206.05	802.34	96.96	1697.00	214.00	629.05	49.37	637.35	70.05
2013-D57	57_11	67.47	146.58	6443.12	95.49	10.47	3.66	0.10	10.13	1538.47	190.64	588.24	41.01	827.00	115.00	592.04	45.63	560.82	37.87
2013-D57	57_11b	261.98	425.64	17976.03	68.62	10.17	4.35	0.16	8.71	2446.94	147.44	604.74	49.99	1168.00	127.00	603.82	37.23	523.90	40.32
2013-D57	57_01	122.80	227.68	9804.38	79.84	11.47	3.08	0.07	2.67	924.02	54.85	538.75	31.71	619.00	37.00	591.97	41.26	527.26	30.83
2013-D57	57_02	158.21	457.73	19579.95	123.76	10.12	2.94	0.08	2.91	1224.88	57.11	607.22	34.00	756.00	43.00	587.81	35.68	586.81	32.31

Appendix 6b: Pakaka deposit

Table 1: Sample PB12-PK02

						Data for Tera-Wasserberg plot						Ages							
Sample	Analysis	Th/U	Pb (ppm)	Th (ppm)	U (ppm)	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	Cor.Th-Pb Age	2σ [Ma]	Cor. $^{206}Pb/^{238}U$ age	2σ[Ma]
PB12-PK12	PK_02	125.95	708.69	30080.75	238.84	11.00	1.98	0.06	1.55	652.45	33.24	560.73	21.23	579.03	21.95	560.95	23.36	554.93	21.09
PB12-PK12	PK_04	28.69	154.88	5668.42	197.60	9.53	2.30	0.14	4.33	2264.71	74.75	643.03	28.05	1138.37	65.01	557.45	37.76	579.16	23.34
PB12-PK12	PK_06	202.91	432.91	19059.96	93.93	9.69	2.42	0.24	3.04	3097.56	48.51	633.33	29.13	1496.72	59.11	522.84	24.34	491.93	19.18
PB12-PK12	PK_08	65.28	255.24	10168.26	155.78	10.85	2.44	0.08	3.55	1072.38	71.24	568.18	26.49	680.30	41.81	569.51	28.54	555.19	25.48
PB12-PK12	PK_11	64.38	295.50	11990.08	186.24	10.77	2.14	0.07	2.14	790.02	44.92	572.54	23.42	618.18	27.66	580.66	33.36	566.20	23.07
PB12-PK12	PK_15	61.77	306.22	12403.10	200.79	10.46	2.28	0.09	3.34	1433.77	63.69	588.43	25.64	796.25	43.70	567.70	30.38	564.83	23.82
PB12-PK12	PK_17	126.50	352.73	15041.24	118.90	11.08	2.42	0.08	3.52	1137.31	70.09	556.98	25.83	686.11	41.79	549.26	24.51	540.25	24.68
PB12-PK12	PK_18	93.96	370.71	14434.80	153.63	10.10	2.13	0.10	2.30	1698.44	42.44	608.68	24.68	897.64	36.71	591.90	29.93	573.69	22.20
PB12-PK12	PK_19	103.21	454.28	19518.10	189.10	10.97	2.16	0.06	1.70	768.91	35.85	562.47	23.17	605.05	24.73	548.61	24.11	555.15	22.84
PB12-PK12	PK_20	164.55	513.86	23145.07	140.65	11.80	2.34	0.06	1.84	774.06	38.72	524.54	23.48	573.61	25.73	535.57	25.35	514.64	23.08
PB12-PK12	PK_22	173.83	651.12	28741.02	165.34	11.98	2.21	0.08	4.55	1170.48	90.06	516.71	21.87	655.92	47.71	544.24	26.96	497.75	20.79
PB12-PK12	PK_23	158.24	445.59	20163.72	127.42	12.21	1.99	0.06	2.29	753.61	48.40	507.38	19.36	554.43	25.60	516.49	25.19	497.93	19.04
PB12-PK12	PK_24	98.54	275.33	10681.00	108.39	10.10	2.33	0.12	3.79	1920.52	67.96	608.86	27.07	972.47	54.23	555.29	35.29	563.80	23.65
PB12-PK12	PK_19	123.80	371.80	16760.09	135.38	11.15	2.18	0.06	2.19	666.12	46.85	553.89	23.14	576.20	26.83	530.50	24.19	547.81	22.96
PB12-PK12	PK_23	209.74	431.30	19364.82	92.33	10.59	5.02	0.19	12.18	2753.17	200.08	581.94	55.66	1269.25	174.91	513.10	24.85	482.23	43.67
PB12-PK12	PK_24	14.91	39.11	1199.27	80.45	10.21	2.94	0.08	2.47	1304.06	47.90	602.39	33.68	772.83	40.67	617.08	68.74	584.41	31.75

Appendix 6c: Pamao Deposit

Table 1: Sample PB12-PM02

						Data for Tera-Wasserberg plot				Ages								
Sample	Analysis	Th/U	Pb (ppm)	Th (ppm)	U (ppm)	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	Cor.Th-Pb Age	2σ [Ma]	Cor. $^{206}Pb/^{238}U$ age	2σ[Ma]
PB12-PM02	02_01	110.7	120	5053	46	10.771	3.76	0.1118	8.14	1828	148	572	41	902	102	544.68	42.6	532.6	36.4
PB12-PM02	02_02	93.6	131	5562	59	8.843	3.54	0.2168	3.23	2957	52	691	46	1500	72	533.58	38.8	559.5	31.4
PB12-PM02	02_03	63.8	116	4435	70	9.597	3.03	0.1267	2.25	2053	40	639	37	1052	48	581.83	37.5	586.8	31.3
PB12-PM02	02_04	128.6	152	6183	48	10.800	3.43	0.1000	3.51	1624	65	571	37	835	54	577.73	40.4	538.7	33.8
PB12-PM02	02_05	82.3	147	5225	63	10.479	3.13	0.1400	2.01	2228	35	588	35	1061	48	663.37	46.1	528.1	28.7
PB12-PM02	02_06	36.7	49	1674	46	7.344	3.51	0.2862	2.49	3397	39	823	54	1880	71	569.30	59.2	604.4	30.3
PB12-PM02	02_07	39.3	54	2114	54	9.598	3.61	0.1313	2.84	2116	50	639	44	1076	59	556.66	60.4	584.0	36.8
PB12-PM02	02_08	39.4	68	2702	69	10.103	2.93	0.0957	2.61	1541	49	608	34	848	44	577.89	52.6	581.4	31.1

Table 2: Sample 2013-PM12

						Data for Tera-Wasserberg plot						Ages							
Sample	Analysis	Th/U	Pb (ppm)	Th (ppm)	U (ppm)	$^{238}U/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	1σ %	$^{207}Pb/^{206}Pb$	2σ abs	$^{206}Pb/^{238}U$	2σ abs	$^{207}Pb/^{235}U$	2σ abs	Cor.Th-Pb Age	2σ [Ma]	Cor. $^{206}Pb/^{238}U$ age	2σ[Ma]
2013-PM12	12_01	288.1	429	17741	62	8.302	5.24	0.2772	6.84	3347	107	733	72	1750	134	549.64	23.2	534.5	44.2
2013-PM12	12_02	233.8	570	23302	100	11.094	2.46	0.0945	2.68	1518	51	556	26	788	39	577.88	24.6	524.7	24.0
2013-PM12	12_03	200.2	319	13029	65	9.864	2.49	0.1906	3.76	2748	62	623	29	1318	64	581.85	29.9	518.3	21.8
2013-PM12	12_04	208.5	621	24945	120	10.249	3.20	0.1273	8.30	2061	146	600	37	1013	108	598.24	25.5	544.8	31.8
2013-PM12	12_05	295.8	630	28622	97	12.643	2.48	0.0956	4.89	1539	92	491	23	725	55	530.09	20.3	457.9	21.4
2013-PM12	12_06	232.9	371	13980	60	8.872	3.21	0.2287	4.66	3043	75	688	42	1539	86	610.53	29.8	542.9	28.6
2013-PM12	12_07	209.9	278	11021	53	10.429	3.45	0.1221	4.22	1987	75	590	39	975	66	592.14	28.6	539.1	33.4
2013-PM12	12_08	220.5	559	21974	100	10.000	2.69	0.1700	3.48	2558	58	614	31	1225	61	590.64	23.7	526.0	24.2
2013-PM12	12_09	317.6	643	29917	94	11.301	2.91	0.1390	2.82	2215	49	547	30	1007	50	519.56	19.4	482.8	24.9
2013-PM12	12_10	312.3	688	29917	96	10.695	2.89	0.1734	3.75	2591	63	576	32	1192	64	544.02	24.5	486.3	24.2
2013-PM12	12_11	185.2	472	18951	102	8.407	2.87	0.2646	2.28	3274	36	725	39	1701	59	574.81	29.4	542.6	23.3
2013-PM12	12_12	237.8	498	20291	85	11.012	2.61	0.1461	2.41	2301	41	560	28	1056	46	565.52	24.7	493.4	22.5
2013-PM12	12_13	117.2	260	10250	87	8.788	3.85	0.1912	6.20	2752	102	695	51	1407	105	571.05	28.9	583.9	37.9
2013-PM12	12_14	247.7	271	11056	45	7.544	3.44	0.2871	3.98	3402	62	802	52	1860	86	573.49	27.8	580.4	30.5
2013-PM12	12_15	297.2	472	17748	60	2.433	9.17	0.5112	5.29	4274	78	2219	335	3452	189	583.33	30.2	1152.6	109.4

Appendix 5c: Pakaka deposit; Host lithologies and alteration EDS data

Table 1: Sample PB12-PM03

Sample	Analysis	S	Fe	Co	Ni	Cu	As	Total	Mineral
				Elemental %					
PB12-PM03	SITE 1 A	53.58	45.19				1.51	100.28	As-Pyrite
PB12-PM03	SITE 1 B	53.86	45.28				1.16	100.30	As-Pyrite
PB12-PM03	SITE 1 C	54.39	45.83					100.22	Pyrite
PB12-PM03	SITE 1 D	31.26	36.90				36.19	104.35	Arsenopyrite
PB12-PM03	SITE 1 E	53.79	45.64				1.20	100.63	As-Pyrite
PB12-PM03	SITE 1 G	54.28	45.87					100.15	Pyrite
PB12-PM03	SITE 1 H	54.67	45.69					100.36	Pyrite
PB12-PM03	SITE 1 A2	54.80	45.80				0.56	101.15	As-Pyrite
PB12-PM03	SITE 1 J	53.98	46.26				1.06	101.30	As-Pyrite
PB12-PM03	SITE 1 L	53.90	45.83					99.73	Pyrite
PB12-PM03	SITE 1 N	53.85	46.00				0.50	100.35	As-Pyrite
PB12-PM03	SITE 1 O	54.54	45.95					100.50	Pyrite
PB12-PM03	SITE 1 P	54.72	46.11					100.84	Pyrite
PB12-PM03	SITE 1 Q	53.73	45.91				1.34	100.99	As-Pyrite
PB12-PM03	SITE 1 R	53.89	45.74				1.41	101.04	As-Pyrite
PB12-PM03	SITE 1 S	53.80	45.65				1.14	100.59	As-Pyrite
PB12-PM03	SITE 1 T	54.11	45.92				0.69	100.72	As-Pyrite
PB12-PM03	SITE 2 A	54.46	45.91					100.37	Pyrite
PB12-PM03	SITE 2 C	53.61	45.65				1.30	100.55	As-Pyrite
PB12-PM03	SITE 2 D	54.02	46.35				0.63	101.00	As-Pyrite
PB12-PM03	SITE 2 E	53.63	45.97				1.03	100.64	As-Pyrite
PB12-PM03	SITE 2 F	53.76	46.03				0.85	100.63	As-Pyrite
PB12-PM03	SITE 2 G	53.99	45.78				1.38	101.15	As-Pyrite
PB12-PM03	SITE 2 I	54.10	46.01				0.63	100.74	As-Pyrite
PB12-PM03	SITE 2 K	53.80	45.97				0.99	100.76	As-Pyrite
PB12-PM03	SITE 2 M	54.09	46.15				1.05	101.29	As-Pyrite
PB12-PM03	SITE 2 N	54.82	45.79					100.61	Pyrite

Table 2: Sample PB12-PM07

Sample	Analysis	S	Fe	Co	Ni	Cu	As	Total	Mineral
				Elemental %					
PB12-PM07	SITE 1 A	53.71	44.81		0.97		1.92	101.41	As-Ni-Pyrite
PB12-PM07	SITE 1 B	54.58	46.21					100.79	Pyrite
PB12-PM07	SITE 1 C	52.96	45.48				2.20	100.64	As-Pyrite
PB12-PM07	SITE 1 D	52.98	45.29				1.77	100.04	As-Pyrite
PB12-PM07	SITE 1 E	53.96	45.94				0.55	100.45	As-Pyrite
PB12-PM07	SITE 1 F	53.82	44.98					98.80	Pyrite
PB12-PM07	SITE 1 G	52.00	44.44				2.39	98.84	As-Pyrite
PB12-PM07	SITE 1 H	53.79	45.60					99.39	Pyrite
PB12-PM07	SITE 1I	53.90	45.00		0.73		1.12	100.75	As-Ni-Pyrite
PB12-PM07	SITE 1 L	45.69	33.51		7.85		18.25	105.30	Ni-Arsenopyrite
PB12-PM07	SITE 2 A	52.71	45.26				2.37	100.35	As-Pyrite
PB12-PM07	SITE 2 B	54.68	45.83					100.51	Pyrite
PB12-PM07	SITE 2 F	54.47	45.54				0.54	100.54	As-Pyrite
PB12-PM07	SITE 2 H	54.11	45.12		0.60		1.23	101.05	As-Ni-Pyrite
PB12-PM07	SITE 2 I	54.50	45.36					99.86	Pyrite
PB12-PM07	SITE 3 A	54.01	45.47					99.48	Pyrite
PB12-PM07	SITE B	52.80	45.00				2.35	100.15	As-Pyrite
PB12-PM07	SITE 3 C	54.64	45.72					100.36	Pyrite
PB12-PM07	SITE 3 D	53.68	45.20					98.88	Pyrite
PB12-PM07	SITE 3 E	20.52	15.14		20.39		42.63	98.68	Ni-Arsenopyrite
PB12-PM07	SITE 3 F	20.28	14.96		19.44		39.41	94.09	Ni-Arsenopyrite
PB12-PM07	SITE 3 G	54.41	45.71					100.12	Pyrite
PB12-PM07	SITE 3 H	54.06	45.83				0.53	100.42	As-Pyrite
PB12-PM07	SITE 3 I	51.77	44.76				3.58	100.12	As-Pyrite
PB12-PM07	SITE 3 J	54.56	45.86					100.42	Pyrite
PB12-PM07	SITE 3 K	54.48	45.93					100.41	Pyrite

Table 2: Sample PB12-PM07; Continued

Sample	Analysis	S	Fe	Co	Ni	Cu	As	Total	Mineral
				Elemental %					
PB12-PM07	SITE 3 L	20.17	14.60	3.40	17.96		41.88	98.01	As-Ni-Co-Pyrite
PB12-PM07	SITE 3 O	53.02	44.99				1.90	99.91	As-Pyrite
PB12-PM07	SITE 3 P	21.14	14.76		18.60		44.08	98.58	Ni-Arsenopyrite
PB12-PM07	SITE 3 Q	52.77	45.13				2.34	100.24	As-Pyrite
PB12-PM07	SITE 3 R	20.96	14.50		20.78		43.75	99.98	Ni-Arsenopyrite
PB12-PM07	SITE 3 R2	21.17	14.87		21.29		43.99	101.32	Ni-Arsenopyrite
PB12-PM07	SITE 3 S	53.94	45.84					99.77	Pyrite
PB12-PM07	SITE 3 S2	52.43	45.13				3.02	100.57	As-Pyrite
PB12-PM07	SITE 3 T	53.69	45.28				0.70	99.67	As-Pyrite

Table 3: Sample 2013-PM12

Sample	Analysis	S	Fe	Co	Ni	Cu	As	Total	Mineral
				Elemental %					
2013-PM12	SITE 1 A	52.72	45.19				1.85	99.76	As-Pyrite
2013-PM12	SITE 1 B	22.35	35.41				41.69	99.44	Arsenopyrite
2013-PM12	SITE 1 C	53.57	45.40				1.01	99.98	As-Pyrite
2013-PM12	SITE 1 D	54.09	45.85					99.95	Pyrite
2013-PM12	SITE 1 E	22.40	35.42				41.46	99.28	Arsenopyrite
2013-PM12	SITE 1 F	53.22	45.64				1.14	100.00	As-Pyrite
2013-PM12	SITE 1 G	23.76	35.82				40.15	99.73	Arsenopyrite
2013-PM12	SITE 1 H	53.53	45.97				1.12	100.62	As-Pyrite
2013-PM12	SITE 1 I	22.38	35.73				41.88	99.99	Arsenopyrite
2013-PM12	SITE 1 J	23.78	35.97				40.00	99.75	Arsenopyrite
2013-PM12	SITE 1 K	21.63	35.15				43.25	100.02	Arsenopyrite
2013-PM12	SITE 1 L	54.41	46.17					100.58	Pyrite
2013-PM12	SITE 1 M	22.70	35.35				41.14	99.19	Arsenopyrite
2013-PM12	SITE 1 N	21.92	35.09				42.68	99.70	Arsenopyrite
2013-PM12	SITE 1 O	52.80	45.58				1.72	100.10	As-Pyrite
2013-PM12	SITE 1 P	53.54	45.59				1.32	100.44	As-Pyrite
2013-PM12	SITE 1 Q	22.46	35.82				42.14	100.41	Arsenopyrite
2013-PM12	SITE 1 R	52.27	45.33				2.47	100.08	As-Pyrite
2013-PM12	SITE 1 S	22.93	35.27				40.84	99.03	Arsenopyrite
2013-PM12	SITE 1 T	53.08	45.60				1.36	100.03	As-Pyrite
2013-PM12	SITE 1 U	23.09	35.72				41.24	100.04	Arsenopyrite
2013-PM12	SITE 1 V	52.83	45.85				1.31	99.99	As-Pyrite
2013-PM12	SITE 1 W	21.76	35.15				42.85	99.76	Arsenopyrite
2013-PM12	SITE 1 X	22.96	35.29				41.35	99.60	Arsenopyrite
2013-PM12	SITE 1 Y	53.45	45.84				0.66	99.96	As-Pyrite
2013-PM12	SITE 1 Z	22.83	35.57				41.31	99.71	Arsenopyrite
2013-PM12	SITE 2 A	52.23	45.19				1.66	99.07	As-Pyrite

Table 3: Sample 2013-PM12; continued

Sample	Analysis	S	Fe	Co	Ni	Cu	As	Total	Mineral
				Elemental %					
2013-PM12	SITE 2 B	21.79	33.48		1.13		42.44	98.84	Arsenopyrite
2013-PM12	SITE 2 C	21.63	35.25				41.68	98.57	Arsenopyrite
2013-PM12	SITE 2 D	52.79	44.72				1.24	98.76	As-Pyrite
2013-PM12	SITE 2 E	22.40	35.72				41.52	99.64	Arsenopyrite
2013-PM12	SITE 2 F	22.49	35.24				42.34	100.08	Arsenopyrite
2013-PM12	SITE 2 G	53.36	45.90				1.34	100.61	As-Pyrite
2013-PM12	SITE 2 H	22.90	35.56				41.60	100.06	Arsenopyrite
2013-PM12	SITE 2 I	53.82	46.12				1.54	101.49	As-Pyrite
2013-PM12	SITE 2 J	23.28	36.02				40.58	99.89	Arsenopyrite
2013-PM12	SITE 2 K	52.93	45.28				2.03	100.25	As-Pyrite
2013-PM12	SITE 2 L	22.48	35.52				42.47	100.47	Arsenopyrite
2013-PM12	SITE 1 M	53.55	45.52				1.66	100.74	As-Pyrite
2013-PM12	SITE 2 N	54.21	46.17					100.39	Pyrite
2013-PM12	SITE 2 O	24.17	36.41				39.63	100.20	Arsenopyrite
2013-PM12	SITE 2 P	23.86	35.73				40.47	100.06	Arsenopyrite
2013-PM12	SITE 3 A	53.55	46.02				1.46	101.03	As-Pyrite
2013-PM12	SITE 3 B	22.49	35.58				42.09	100.16	Arsenopyrite
2013-PM12	SITE 3 C	22.73	35.70				41.70	100.13	Arsenopyrite
2013-PM12	SITE 3 D	54.38	45.82				1.29	101.49	As-Pyrite
2013-PM12	SITE 3 E	23.48	35.71				41.13	100.31	Arsenopyrite
2013-PM12	SITE 3 F	23.49	35.52				40.66	99.66	Arsenopyrite
2013-PM12	SITE 3 G	22.17	35.05				42.64	99.86	Arsenopyrite
2013-PM12	SITE 3 H	24.43	35.87				39.87	100.17	Arsenopyrite
2013-PM12	SITE 3 I	53.33	45.86				1.79	100.97	As-Pyrite
2013-PM12	SITE 3 J	22.39	35.57				42.42	100.39	Arsenopyrite
2013-PM12	SITE 4 A	53.73	45.86				1.44	101.03	As-Pyrite

Table 3: Sample 2013-PM12; Continued

Sample	Analysis	S	Fe	Co	Ni	Cu	As	Total	Mineral
				Elemental %					
2013-PM12	SITE 4 B	23.18	35.71				41.81	100.70	Arsenopyrite
2013-PM12	SITE 4 C	22.84	36.08				42.29	101.20	Arsenopyrite
2013-PM12	SITE 4 D	55.05	46.33					101.39	Pyrite
2013-PM12	SITE 4 E	53.54	46.09				1.53	101.15	As-Pyrite
2013-PM12	SITE 4 F	53.67	46.12				1.47	101.25	As-Pyrite
2013-PM12	SITE 4 G	22.76	36.30				42.39	101.45	Arsenopyrite
2013-PM12	SITE 4 H	22.45	35.60				42.85	100.90	Arsenopyrite
2013-PM12	SITE 4 I	23.45	35.93				41.00	100.38	Arsenopyrite
2013-PM12	SITE 4 J	54.92	46.27					101.19	Pyrite
2013-PM12	SITE 4 K	54.35	45.84				1.30	101.49	As-Pyrite
2013-PM12	SITE 4 L	22.65	35.84				42.17	100.65	Arsenopyrite
2013-PM12	SITE 4 M	22.33	35.64				41.81	99.77	Arsenopyrite
2013-PM12	SITE 4 N	23.08	35.84				42.15	101.07	Arsenopyrite
2013-PM12	SITE 4 O	54.15	46.08					100.22	Pyrite

Table 4: Sample 2013-PM31

Sample	Analysis	S	Fe	Co	Ni	Cu	As	Total	Mineral
				Elemental %					
2013-PM31	SITE 1 A	54.28	46.37					100.66	Pyrite
2013-PM31	SITE 1 B	54.46	46.11					100.57	Pyrite
2013-PM31	SITE 1 C	40.38	59.83					100.21	Pyrite
2013-PM31	SITE 1 E	54.35	46.45					100.80	Pyrite
2013-PM31	SITE 1 F	41.20	59.56					100.76	Pyrite
2013-PM31	SITE 1 G	40.61	59.85					100.45	Pyrite
2013-PM31	SITE 1 H	54.81	46.64					101.45	Pyrite
2013-PM31	SITE 1 K	54.07	45.99					100.06	Pyrite
2013-PM31	SITE 1 L	54.50	46.55					101.06	Pyrite
2013-PM31	SITE 1 M	54.83	46.01					100.84	Pyrite
2013-PM31	SITE 1 N	54.60	46.56					101.17	Pyrite
2013-PM31	SITE 1 O	54.73	46.71					101.44	Pyrite
2013-PM31	SITE 1 P	55.21	45.80					101.01	Pyrite
2013-PM31	SITE 1 Q	40.44	58.97					99.41	Pyrite
2013-PM31	SITE 2 A	54.53	46.48					101.02	Pyrite
2013-PM31	SITE 2 B	54.95	46.39					101.33	Pyrite
2013-PM31	SITE 2 C	54.73	46.60					101.33	Pyrite
2013-PM31	SITE 2 D	54.99	46.44					101.43	Pyrite
2013-PM31	SITE 2 E	54.21	46.42					100.64	Pyrite
2013-PM31	SITE 2 F	55.09	46.34					101.43	Pyrite
2013-PM31	SITE 2 G	54.79	46.44					101.22	Pyrite
2013-PM31	SITE 2 H	54.44	46.13					100.57	Pyrite
2013-PM31	SITE 2 I	54.47	46.44					100.91	Pyrite
2013-PM31	SITE 2 J	40.50	59.50					100.00	Pyrite
2013-PM31	SITE 2 K	54.71	46.52					101.24	Pyrite
2013-PM31	SITE 2 L	54.62	46.12					100.74	Pyrite
2013-PM31	SITE 2 P	54.41	46.15					100.56	Pyrite

Table 4: Sample 2013-PM31; Continued

Sample	Analysis	S	Fe	Co	Ni	Cu	As	Total	Mineral
				Elemental %					
2013-PM31	SITE 3 A	54.48	46.49					100.98	Pyrite
2013-PM31	SITE 3 B	54.47	46.67					101.14	Pyrite
2013-PM31	SITE 3 C	54.04	46.18					100.23	Pyrite
2013-PM31	SITE 3 D	40.47	59.57					100.04	Pyrite
2013-PM31	SITE 3 E	40.86	59.59					100.46	Pyrite
2013-PM31	SITE 3 F	21.54	30.83	4.63			43.41	100.41	Co-Arsenopyrite
2013-PM31	SITE 3 G	25.61	35.62				38.53	99.76	Arsenopyrite
2013-PM31	SITE 3 I	54.84	46.44					101.28	Pyrite
2013-PM31	SITE 3 J	20.54	31.73	3.82			41.61	97.69	Co-Arsenopyrite
2013-PM31	SITE 3 K	54.91	46.47					101.38	Pyrite
2013-PM31	SITE 3 L	21.89	33.87	2.28			43.08	101.12	Co-Arsenopyrite
2013-PM31	SITE 3 M	54.69	46.77					101.46	Pyrite
2013-PM31	SITE 3 N	21.33	33.67	2.43			43.41	100.83	Co-Arsenopyrite
2013-PM31	SITE 3 O	54.97	46.18					101.15	Pyrite
2013-PM31	SITE 3 P	21.59	33.29	2.72			44.72	102.32	Co-Arsenopyrite