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The attenuation of the main zone at the Phosiri Dome, Bushveld Complex

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Plagioclase Rim															
Sample	D1.399g	D1.399h	D1.476a	D1.476b	D1.476c	D1.476d	D1.476e	D1.476f	D1.476g	D1.578a	D1.578b	D1.578c	D1.578d	D1.578e	D1.578f
Depth*	-159	-159	-236	-236	-236	-236	-236	-236	-236	-338	-338	-338	-338	-338	-338
SiO_2	49.51	50.29	50.17	50.26	50.06	49.80	50.06	50.15	49.46	50.86	50.89	50.54	50.33	50.46	50.54
TiO_2	0.00	0.02	0.04	0.04	0.00	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Al_2O_3	32.32	31.83	31.75	31.69	31.87	32.05	31.89	31.83	32.29	31.33	31.41	31.65	31.70	31.71	31.61
FeO	0.18	0.13	0.18	0.19	0.18	0.13	0.18	0.10	0.12	0.19	0.11	0.10	0.15	0.12	0.10
MnO	0.02	0.00	0.01	0.00	0.07	0.00	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.02	0.06
MgO	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.04	0.05	0.00
CaO	15.00	14.28	14.51	14.44	14.56	14.85	14.58	14.50	15.15	13.97	13.97	14.26	14.40	14.33	14.20
Na_2O	2.82	3.17	3.12	3.16	3.07	2.95	3.07	3.11	2.80	3.43	3.45	3.29	3.19	3.25	3.29
K_2O	0.23	0.21	0.19	0.16	0.16	0.15	0.16	0.18	0.10	0.17	0.15	0.11	0.15	0.17	0.12
Total	100.07	99.94	99.97	99.96	99.96	99.93	99.97	99.96	99.94	99.95	99.98	100.03	99.96	100.12	99.94
Ab	25.00	28.30	27.70	28.10	27.40	26.20	27.30	27.70	24.90	30.50	30.60	29.20	28.40	28.80	29.30
An	73.60	70.40	71.20	70.90	71.70	72.90	71.70	71.30	74.50	68.50	68.50	70.10	70.70	70.20	70.00
Or	1.30	1.30	1.10	1.00	0.90	0.90	1.00	1.00	0.60	1.00	0.90	0.60	0.90	1.00	0.70
An#	74.65	71.33	71.99	71.62	72.35	73.56	72.42	72.02	74.95	69.19	69.12	70.59	71.34	70.91	70.49
Si	9.04	9.17	9.15	9.17	9.14	9.09	9.13	9.15	9.04	9.26	9.26	9.20	9.18	9.19	9.21
Al	6.95	6.83	6.82	6.81	6.85	6.89	6.85	6.84	6.95	6.72	6.73	6.79	6.81	6.80	6.78
Ti	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fe2	0.03	0.02	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
Mn	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mg	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.00
Ca	2.93	2.79	2.84	2.82	2.85	2.90	2.85	2.83	2.97	2.73	2.72	2.78	2.81	2.80	2.77
Na	1.00	1.12	1.10	1.12	1.09	1.05	1.09	1.10	0.99	1.21	1.22	1.16	1.13	1.15	1.16
K	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.04	0.04	0.03	0.04	0.04	0.03
Sum_cat	20.00	19.99	19.99	19.99	19.99	19.99	19.99	19.99	19.99	19.99	19.99	19.99	19.99	20.00	19.98

Clinopyroxene Core																			
Sample	D2.334a	D2.334b	D2.334c	D2.334d	D2.356a	D2.383a	D2.383b	D2.383c	D2.383d	D2.383e	D2.399a	D2.399b	D2.431a	D2.431b	D2.441a	D2.441b	D2.441c	D2.441d	D2.441e
Depth*	111	111	111	111	89	62	62	62	62	62	46	46	14	14	4	4	4	4	4
SiO_2	53.12	53.84	52.85	53.27	55.32	52.92	53.36	52.48	53.36	54.41	53.56	53.24	51.33	51.52	52.81	53.46	52.53	52.08	52.50
TiO_2	0.13	0.13	0.11	0.12	0.07	0.21	0.20	0.28	0.25	0.07	0.18	0.29	0.51	0.45	0.26	0.37	0.38	0.34	0.45
Al_2O_3	1.69	1.37	1.65	1.57	0.90	1.40	1.37	1.64	1.38	0.22	1.80	1.97	2.04	1.82	1.35	1.57	1.53	1.23	1.63
FeO	11.43	12.66	11.35	11.81	10.07	10.23	9.93	10.93	10.59	1.24	9.17	10.20	10.41	11.06	12.33	10.44	9.10	8.31	9.13
Cr_2O_3	0.05	0.00	0.00	0.02	0.04	0.04	0.06	0.05	0.08	0.36	0.00	0.01	0.00	0.00	0.02	0.00	0.04	0.02	0.02
MnO	0.26	0.33	0.29	0.29	0.24	0.20	0.19	0.27	0.21	0.04	0.33	0.30	0.34	0.26	0.19	0.15	0.18	0.18	0.20
MgO	14.45	13.14	14.01	13.86	14.40	12.96	12.63	12.85	12.68	17.36	14.90	13.41	12.52	10.80	12.44	13.11	13.22	13.52	13.44
CaO	18.49	18.26	19.64	18.80	21.76	21.53	22.11	21.03	21.17	26.15	20.02	20.64	22.13	23.71	20.19	20.54	22.62	24.07	22.38
Na_2O	0.44	0.35	0.00	0.26	0.11	0.59	0.20	0.40	0.25	0.14	0.00	0.00	0.82	0.34	0.42	0.37	0.37	0.47	0.23
Total	100.07	100.06	99.91	100.01	102.94	100.10	100.04	99.97	99.98	99.99	99.98	100.08	100.10	99.99	100.01	100.04	100.01	100.24	99.99
WO	38.75	39.13	40.73	39.54	43.66	45.13	46.46	44.13	44.81	50.97	41.56	43.46	46.17	49.84	42.71	43.66	46.86	48.62	46.28
EN	42.13	39.16	40.41	40.58	40.19	37.81	36.94	37.52	37.34	47.08	43.04	39.29	36.32	31.57	36.62	38.77	38.12	37.99	38.67
FS	19.13	21.72	18.86	19.88	16.16	17.07	16.60	18.36	17.85	1.95	15.40	17.26	17.51	18.59	20.67	17.58	15.02	13.39	15.06
Mg #	68.77	64.33	68.18	67.11	71.33	68.89	68.99	67.15	67.66	96.01	73.64	69.48	67.48	62.95	63.92	68.80	71.73	73.94	71.98
TSi	1.98	2.03	1.98	2.00	2.01	1.98	2.00	1.97	2.01	1.97	1.99	2.00	1.92	1.95	1.99	2.00	1.96	1.93	1.96
TAl	0.02	0.00	0.02	0.00	0.00	0.02	0.00	0.03	0.00	0.01	0.01	0.00	0.08	0.05	0.01	0.00	0.04	0.05	0.04
TFe3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
M1Al	0.06	0.06	0.06	0.07	0.04	0.04	0.06	0.04	0.06	0.00	0.07	0.08	0.01	0.03	0.05	0.07	0.03	0.00	0.03
M1Ti	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
M1Fe3	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.02	0.00	0.00	0.01	0.08	0.00
M1Fe2	0.14	0.20	0.16	0.15	0.18	0.22	0.23	0.23	0.22	0.04	0.10	0.16	0.18	0.33	0.24	0.19	0.21	0.16	0.21
M1Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Mg	0.80	0.74	0.78	0.78	0.78	0.72	0.71	0.72	0.71	0.94	0.83	0.75	0.70	0.61	0.70	0.73	0.74	0.75	0.75
M2Mg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M2Fe2	0.22	0.20	0.20	0.22	0.13	0.09	0.09	0.12	0.11	0.00	0.19	0.16	0.04	0.00	0.15	0.14	0.06	0.00	0.08
M2Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
M2Ca	0.74	0.74	0.79	0.76	0.85	0.86	0.89	0.85	0.85	1.02	0.80	0.83	0.89	0.96	0.82	0.82	0.91	0.96	0.90
M2Na	0.03	0.03	0.00	0.02	0.01	0.04	0.01	0.03	0.02	0.01	0.00	0.00	0.06	0.03	0.03	0.03	0.03	0.03	0.02
Sum_cat	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Clinopyroxene Core																		
Sample	D2.441f	D2.467a	D2.467b	D2.467c	D2.484a	D2.484b	D2.484c	D2.507a	D2.507b	D2.507c	D2.533a	D2.533b	D2.533c	D2.558a	D2.558b	D2.558c	D2.593a	D2.593b
Depth*	4	-22	-22	-22	-39	-39	-39	-62	-62	-62	-88	-88	-88	-113	-113	-113	-148	-148
SiO_2	52.20	53.62	52.19	53.38	51.14	51.61	53.13	52.96	53.76	52.59	53.30	53.06	53.73	52.72	53.43	52.68	53.86	53.22
TiO_2	0.41	0.20	0.33	0.34	0.25	0.37	0.31	0.31	0.11	0.24	0.35	0.23	0.16	0.16	0.14	0.28	0.09	0.21
Al_2O_3	1.57	1.36	1.53	1.56	1.44	1.67	1.43	1.81	0.95	1.71	1.60	1.61	1.48	1.53	1.50	1.80	1.08	1.72
FeO	8.88	8.57	8.98	10.18	8.79	8.50	7.19	10.34	10.66	8.47	8.27	9.08	10.79	8.80	9.52	9.14	8.91	10.14
Cr_2O_3	0.04	0.04	0.02	0.02	0.04	0.00	0.07	0.04	0.08	0.00	0.08	0.07	0.10	0.04	0.04	0.05	0.01	0.07
MnO	0.24	0.21	0.26	0.30	0.24	0.19	0.22	0.23	0.48	0.22	0.22	0.22	0.31	0.20	0.24	0.23	0.23	0.28
MgO	13.36	13.93	13.17	14.41	13.60	13.97	14.09	14.39	16.38	16.05	14.28	15.26	15.78	14.17	13.77	13.23	14.16	14.36
CaO	22.86	21.77	23.56	19.70	23.92	23.47	23.64	19.45	17.27	20.32	21.65	20.60	17.57	22.44	20.61	22.62	21.24	19.83
Na_2O	0.38	0.28	0.00	0.19	0.56	0.23	0.00	0.56	0.35	0.47	0.24	0.00	0.10	0.25	0.68	0.00	0.39	0.49
Total	99.98	99.98	100.05	100.08	100.01	100.02	100.08	100.09	100.05	100.09	100.02	100.15	100.01	100.34	99.95	100.07	99.98	100.32
WO	47.06	45.35	47.98	41.10	47.95	47.23	48.20	40.76	35.42	41.09	44.97	41.97	36.45	45.63	43.49	46.78	44.18	41.37
EN	38.28	40.37	37.33	41.83	37.92	39.11	39.99	41.96	46.74	45.18	41.28	43.24	45.56	40.08	40.42	38.08	40.99	41.68
FS	14.66	14.27	14.69	17.07	14.13	13.66	11.81	17.28	17.85	13.73	13.76	14.79	17.99	14.29	16.09	15.14	14.84	16.96
Mg #	72.30	73.88	71.75	71.02	72.86	74.11	77.20	70.82	72.36	76.70	75.00	74.51	71.69	73.72	71.53	71.56	73.42	71.08
TSi	1.95	2.00	1.95	1.99	1.90	1.92	1.97	1.97	1.99	1.94	1.98	1.97	2.00	1.95	1.99	1.97	2.00	1.98
TAl	0.05	0.00	0.05	0.01	0.06	0.07	0.03	0.03	0.01	0.07	0.02	0.03	0.00	0.05	0.01	0.03	0.00	0.03
TFe3	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Al	0.02	0.06	0.02	0.06	0.00	0.00	0.04	0.05	0.03	0.01	0.05	0.04	0.06	0.02	0.06	0.05	0.05	0.05
M1Ti	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01
M1Fe3	0.04	0.00	0.01	0.00	0.13	0.08	0.00	0.01	0.00	0.08	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
M1Fe2	0.19	0.16	0.23	0.13	0.11	0.14	0.17	0.14	0.06	0.03	0.15	0.11	0.05	0.16	0.18	0.20	0.16	0.15
M1Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Mg	0.74	0.77	0.74	0.80	0.75	0.77	0.78	0.80	0.91	0.88	0.79	0.84	0.88	0.78	0.76	0.74	0.79	0.80
M2Mg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M2Fe2	0.05	0.10	0.05	0.19	0.00	0.04	0.05	0.18	0.27	0.16	0.11	0.17	0.28	0.08	0.12	0.09	0.11	0.17
M2Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
M2Ca	0.91	0.87	0.95	0.79	0.95	0.94	0.94	0.78	0.69	0.80	0.86	0.82	0.70	0.89	0.82	0.91	0.85	0.79
M2Na	0.03	0.02	0.00	0.01	0.04	0.02	0.00	0.04	0.03	0.03	0.02	0.00	0.01	0.02	0.05	0.00	0.03	0.04
Sum_cat	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Clinopyroxene Rim																		
Sample	D2.334a	D2.334b	D2.334c	D2.334d	D2.356a	D2.383a	D2.383b	D2.399a	D2.399b	D2.399c	D2.431a	D2.431b	D2.441a	D2.441b	D2.441c	D2.441d	D2.441e	D2.441f
Depth*	111	111	111	111	89	62	62	46	46	46	14	14	4	4	4	4	4	4
SiO_2	53.55	53.89	52.50	53.36	54.10	53.04	53.49	53.27	52.60	52.37	52.41	51.68	53.78	52.98	51.81	51.81	51.62	52.93
TiO_2	0.06	0.11	0.09	0.14	0.16	0.24	0.16	0.22	0.24	0.20	0.35	0.25	0.16	0.28	0.31	0.18	0.40	0.38
Al_2O_3	1.26	1.45	1.25	1.60	1.57	1.35	1.22	1.91	2.20	1.30	1.87	1.57	0.82	1.32	1.44	1.00	1.55	1.33
FeO	11.37	11.28	11.57	10.93	13.93	11.42	10.23	12.04	9.24	10.10	10.02	11.55	11.01	10.84	9.06	8.97	8.73	9.17
Cr_2O_3	0.00	0.03	0.00	0.00	0.03	0.06	0.05	0.01	0.05	0.06	0.00	0.02	0.03	0.01	0.03	0.02	0.02	0.04
MnO	0.31	0.29	0.31	0.24	0.23	0.20	0.21	0.31	0.26	0.23	0.26	0.30	0.11	0.19	0.23	0.24	0.28	0.32
MgO	14.63	14.07	13.53	14.35	13.89	12.67	12.70	13.42	13.38	13.86	12.44	12.05	12.67	13.16	14.93	14.41	13.68	13.89
CaO	18.83	18.51	20.53	19.27	20.10	20.74	21.64	18.58	21.48	21.21	22.51	22.36	21.15	20.91	22.17	23.29	22.97	22.02
Na_2O	0.00	0.44	0.25	0.39	0.22	0.25	0.25	0.24	0.48	0.61	0.33	0.24	0.23	0.23	0.05	0.05	0.75	0.00
Total	100.01	100.08	100.06	100.31	104.26	99.97	99.95	100.02	99.98	99.97	100.21	100.05	99.98	99.94	100.05	99.99	100.01	100.10
WO	38.99	39.28	42.21	40.19	39.82	43.72	45.59	39.62	45.22	43.67	47.04	46.22	44.56	43.72	44.17	46.09	46.84	45.17
EN	42.13	41.55	38.71	41.63	38.29	37.15	37.23	39.82	39.17	39.71	36.18	34.65	37.15	38.29	41.37	39.67	38.81	39.63
FS	18.88	19.17	19.08	18.19	21.89	19.13	17.18	20.56	15.61	16.62	16.78	19.13	18.29	17.99	14.46	14.24	14.36	15.20
Mg #	69.06	68.43	66.99	69.60	63.62	66.02	68.43	65.95	71.50	70.50	68.31	64.42	67.01	68.03	74.10	73.59	73.00	72.28
TSi	2.01	2.01	1.97	1.99	1.96	2.00	2.01	2.00	1.96	1.95	1.96	1.95	2.03	1.99	1.93	1.93	1.92	1.98
TAl	0.00	0.00	0.03	0.02	0.04	0.00	0.00	0.00	0.04	0.05	0.04	0.05	0.00	0.01	0.06	0.04	0.07	0.02
TFe3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.02	0.00
M1Al	0.06	0.06	0.02	0.06	0.02	0.06	0.05	0.09	0.06	0.01	0.05	0.02	0.04	0.05	0.00	0.00	0.00	0.04
M1Ti	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
M1Fe3	0.00	0.00	0.02	0.00	0.03	0.00	0.00	0.00	0.00	0.07	0.00	0.04	0.00	0.00	0.06	0.06	0.12	0.00
M1Fe2	0.13	0.15	0.20	0.15	0.20	0.22	0.23	0.16	0.19	0.14	0.25	0.26	0.25	0.21	0.10	0.13	0.12	0.18
M1Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Mg	0.82	0.78	0.76	0.80	0.75	0.71	0.71	0.75	0.74	0.77	0.70	0.68	0.71	0.74	0.83	0.80	0.76	0.77
M2Mg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M2Fe2	0.23	0.20	0.15	0.20	0.20	0.14	0.09	0.22	0.10	0.10	0.06	0.07	0.10	0.13	0.11	0.06	0.02	0.11
M2Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01
M2Ca	0.76	0.74	0.83	0.77	0.78	0.84	0.87	0.75	0.86	0.85	0.90	0.90	0.85	0.84	0.88	0.93	0.91	0.88
M2Na	0.00	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.04	0.02	0.02	0.02	0.02	0.00	0.00	0.05	0.00
Sum_cat	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Clinopyroxene Rim																		
Sample	D2.441g	D2.441h	D2.467a	D2.467b	D2.467c	D2.484a	D2.484b	D2.484c	D2.484d	D2.507a	D2.507b	D2.507c	D2.521a	D2.521b	D2.521c	D2.533a	D2.533b	D2.533c
Depth*	4	4	-22	-22	-22	-39	-39	-39	-39	-62	-62	-62	-76	-76	-76	-88	-88	-88
SiO_2	53.22	53.63	52.95	53.42	52.84	53.88	52.57	52.45	52.65	53.25	53.65	53.72	54.43	54.15	53.60	52.42	53.67	53.36
TiO_2	0.24	0.24	0.21	0.16	0.20	0.12	0.27	0.30	0.36	0.36	0.28	0.31	0.26	0.19	0.31	0.31	0.25	0.20
Al_2O_3	1.21	1.25	1.22	1.03	1.17	1.07	1.72	1.47	1.54	1.72	1.49	1.62	1.78	1.30	1.61	1.65	1.59	1.39
FeO	9.19	8.17	8.85	8.99	8.31	7.76	7.87	8.83	7.56	8.19	9.19	10.54	8.97	7.53	8.77	8.98	8.57	9.14
Cr_2O_3	0.01	0.01	0.01	0.03	0.05	0.05	0.04	0.05	0.00	0.01	0.03	0.04	0.07	0.05	0.07	0.11	0.05	0.05
MnO	0.14	0.15	0.30	0.25	0.27	0.25	0.27	0.21	0.17	0.27	0.22	0.39	0.22	0.20	0.28	0.21	0.21	0.25
MgO	13.88	14.35	14.34	12.69	13.91	13.89	13.84	13.36	14.07	14.43	14.61	15.16	15.18	15.54	14.28	15.40	14.61	14.67
CaO	21.55	21.78	21.81	23.29	22.61	22.53	23.15	22.74	22.93	21.67	20.15	18.07	18.16	20.45	20.82	20.16	20.46	21.23
Na_2O	0.55	0.41	0.33	0.14	0.61	0.42	0.28	0.51	0.75	0.14	0.42	0.19	0.89	0.60	0.23	0.67	0.63	0.10
Total	100.03	100.02	100.03	100.01	99.99	99.98	100.02	99.95	100.04	100.04	100.07	100.07	99.96	100.03	99.99	99.94	100.06	100.41
WO	44.75	45.14	44.60	48.37	46.47	46.83	47.48	47.00	47.25	44.81	42.14	37.89	39.09	42.51	43.59	41.35	42.95	43.36
EN	40.12	41.40	40.79	36.65	39.76	40.18	39.49	38.41	40.32	41.52	42.50	44.21	45.47	44.95	41.62	43.94	42.66	41.67
FS	15.13	13.46	14.60	14.98	13.77	12.99	13.03	14.58	12.44	13.66	15.37	17.90	15.44	12.54	14.79	14.71	14.40	14.97
Mg #	72.62	75.46	73.64	70.99	74.28	75.56	75.19	72.48	76.43	75.24	73.44	71.18	74.65	78.19	73.77	74.92	74.77	73.57
TSi	1.98	1.99	1.97	2.00	1.96	2.00	1.95	1.96	1.95	1.98	1.99	2.00	2.01	2.00	2.00	1.94	1.99	1.98
TAl	0.02	0.01	0.03	0.00	0.04	0.00	0.05	0.05	0.05	0.02	0.01	0.00	0.00	0.01	0.00	0.06	0.01	0.02
TFe3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Al	0.03	0.05	0.02	0.05	0.01	0.05	0.03	0.02	0.01	0.05	0.06	0.07	0.08	0.05	0.07	0.01	0.06	0.04
M1Ti	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
M1Fe3	0.02	0.00	0.02	0.00	0.06	0.00	0.02	0.05	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
M1Fe2	0.18	0.15	0.16	0.24	0.15	0.18	0.17	0.18	0.13	0.14	0.13	0.08	0.08	0.09	0.13	0.05	0.13	0.14
M1Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Mg	0.77	0.79	0.79	0.71	0.77	0.77	0.77	0.74	0.78	0.80	0.81	0.84	0.84	0.85	0.79	0.85	0.81	0.81
M2Mg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M2Fe2	0.10	0.10	0.10	0.04	0.05	0.06	0.05	0.05	0.03	0.12	0.16	0.25	0.20	0.14	0.14	0.15	0.14	0.14
M2Mn	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
M2Ca	0.86	0.87	0.87	0.94	0.90	0.90	0.92	0.91	0.91	0.86	0.80	0.72	0.72	0.81	0.83	0.80	0.81	0.84
M2Na	0.04	0.03	0.02	0.01	0.04	0.03	0.02	0.04	0.05	0.01	0.03	0.01	0.06	0.04	0.02	0.05	0.05	0.01
Sum_cat	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Clinopyroxene Rim							
Sample	D2.533d	D2.533e	D2.558a	D2.558b	D2.558c	D2.558d	D2.593a
Depth*	-88	-88	-113	-113	-113	-113	-148
SiO_2	52.54	54.06	51.82	53.74	53.47	52.84	53.34
TiO_2	0.23	0.21	0.28	0.17	0.20	0.17	0.22
Al_2O_3	1.48	1.45	1.92	1.40	1.63	1.49	1.73
FeO	8.79	9.49	9.62	9.69	9.45	8.95	9.67
Cr_2O_3	0.06	0.06	0.06	0.04	0.02	0.08	0.01
MnO	0.26	0.21	0.22	0.34	0.23	0.30	0.26
MgO	13.80	15.01	14.14	13.08	13.82	13.20	14.90
CaO	22.75	19.28	21.89	21.88	22.13	22.61	19.59
Na_2O	0.10	0.15	0.15	0.25	0.00	0.39	0.34
Total	100.03	99.92	100.13	100.61	100.97	100.06	100.06
WO	46.42	40.40	44.46	45.66	45.24	46.91	40.75
EN	39.18	43.75	39.94	37.99	39.31	38.12	43.13
FS	14.41	15.86	15.61	16.35	15.45	14.98	16.12
Mg #	73.11	73.40	71.90	69.92	71.79	71.79	72.79
TSi	1.96	2.01	1.93	2.00	1.98	1.97	1.98
TAl	0.04	0.00	0.07	0.00	0.02	0.03	0.02
TFe3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Al	0.03	0.06	0.01	0.06	0.05	0.04	0.06
M1Ti	0.01	0.01	0.01	0.01	0.01	0.01	0.01
M1Fe3	0.01	0.00	0.05	0.00	0.00	0.01	0.00
M1Fe2	0.19	0.10	0.14	0.21	0.18	0.21	0.11
M1Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Mg	0.77	0.83	0.79	0.73	0.76	0.73	0.83
M2Mg	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M2Fe2	0.07	0.20	0.11	0.10	0.11	0.06	0.19
M2Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01
M2Ca	0.91	0.77	0.87	0.87	0.88	0.90	0.78
M2Na	0.01	0.01	0.01	0.02	0.00	0.03	0.02
Sum_cat	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Orthopyroxene Core																		
Sample	D2.334a	D2.383a	D2.383b	D2.383c	D2.383d	D2.383e	D2.399a	D2.399b	D2.431a	D2.431b	D2.467a	D2.467b	D2.484a	D2.484b	D2.507a	D2.507b	D2.521a	D2.521b
Depth*	111	62	62	62	62	62	46	46	14	14	-22	-22	-39	-39	-62	-62	-76	-76
SiO_2	54.04	53.63	52.51	52.87	52.62	53.19	53.71	52.60	52.38	52.86	54.53	53.68	54.30	53.08	53.37	53.18	54.35	54.33
TiO_2	0.23	0.16	0.20	0.17	0.02	0.05	0.09	0.06	0.09	0.09	0.10	0.09	0.18	0.08	0.16	0.25	0.14	0.18
Al_2O_3	2.16	0.70	0.56	0.64	0.60	0.66	0.85	0.74	0.60	0.68	0.83	0.62	0.67	0.77	0.83	1.69	0.82	0.86
FeO	23.02	23.16	25.37	24.77	24.98	24.49	22.36	23.45	25.71	25.97	18.99	19.73	20.07	22.78	19.77	17.63	21.13	18.78
Cr_2O_3	0.00	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.02	0.02	0.04	0.02	0.01	0.04	0.03	0.02	0.03
MnO	0.28	0.54	0.59	0.48	0.56	0.58	0.54	0.60	0.64	0.63	0.35	0.55	0.50	0.48	0.48	0.20	0.47	0.45
MgO	20.08	21.12	19.36	20.35	20.37	20.48	21.45	21.83	19.78	18.68	23.85	24.59	23.65	22.30	24.50	25.52	22.44	24.82
CaO	0.00	0.76	0.75	0.73	0.51	0.54	0.81	0.51	0.62	0.88	1.28	0.61	0.57	0.43	0.63	0.98	0.65	0.59
Na_2O	0.64	0.00	0.16	0.05	0.38	0.00	0.15	0.15	0.16	0.21	0.00	0.35	0.00	0.00	0.25	0.47	0.00	0.05
Total	100.48	100.09	99.52	100.06	100.04	100.04	99.99	99.98	99.99	100.04	99.98	100.28	99.99	99.95	100.03	99.98	100.06	100.08
WO	0.00	1.56	1.56	1.49	1.05	1.11	1.68	1.02	1.28	1.85	2.58	1.20	1.16	0.86	1.25	1.94	1.34	1.18
EN	60.57	60.41	56.18	58.07	58.09	58.62	61.49	61.16	56.50	54.55	66.95	67.54	66.42	62.55	67.47	70.45	64.05	68.89
FS	39.43	38.03	42.26	40.44	40.86	40.27	36.83	37.82	42.23	43.60	30.47	31.26	32.42	36.60	31.28	27.61	34.61	29.94
En #	60.57	61.37	57.07	58.95	58.70	59.28	62.54	61.79	57.23	55.57	68.73	68.36	67.20	63.09	68.32	71.84	64.92	69.71
TSi	2.01	2.01	2.00	1.99	1.98	2.01	2.01	1.97	1.98	2.01	2.01	1.96	2.01	1.98	1.96	1.93	2.02	1.99
TAl	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.03	0.02	0.00	0.00	0.03	0.00	0.02	0.04	0.07	0.00	0.01
TFe3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
M1Al	0.10	0.03	0.03	0.02	0.01	0.03	0.04	0.00	0.01	0.03	0.04	0.00	0.03	0.01	0.00	0.00	0.04	0.03
M1Ti	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01
M1Fe3	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.04	0.02	0.00	0.00	0.06	0.00	0.00	0.05	0.09	0.00	0.00
M1Fe2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Mg	0.90	0.96	0.97	0.97	0.95	0.97	0.96	0.96	0.97	0.97	0.96	0.94	0.97	0.98	0.94	0.90	0.96	0.97
M2Mg	0.22	0.22	0.13	0.17	0.19	0.18	0.24	0.26	0.14	0.09	0.35	0.40	0.34	0.26	0.40	0.48	0.28	0.39
M2Fe2	0.72	0.73	0.81	0.78	0.74	0.77	0.70	0.69	0.80	0.83	0.58	0.53	0.62	0.71	0.55	0.44	0.66	0.58
M2Mn	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.01
M2Ca	0.00	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.03	0.04	0.05	0.02	0.02	0.02	0.03	0.04	0.03	0.02
M2Na	0.05	0.00	0.01	0.00	0.03	0.00	0.01	0.01	0.01	0.02	0.00	0.03	0.00	0.00	0.02	0.03	0.00	0.00
Sum_cat	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Orthopyroxene Rim																			
Sample	D2.334a	D2.356a	D2.383a	D2.383b	D2.383c	D2.383d	D2.383e	D2.383f	D2.383g	D2.431a	D2.431b	D2.467a	D2.467b	D2.484a	D2.484b	D2.507a	D2.507b	D2.521a	D2.521b
Depth*	111	89	62	62	62	62	62	62	62	14	14	-22	-22	-39	-39	-62	-62	-76	-76
SiO_2	54.04	54.22	53.63	52.51	52.87	52.62	53.19	53.71	52.60	52.38	52.86	54.53	53.68	54.30	53.08	53.37	53.18	54.35	54.33
TiO_2	0.23	0.06	0.16	0.20	0.17	0.02	0.05	0.09	0.06	0.09	0.09	0.10	0.09	0.18	0.08	0.16	0.25	0.14	0.18
Al_2O_3	2.16	0.85	0.70	0.56	0.64	0.60	0.66	0.85	0.74	0.60	0.68	0.83	0.62	0.67	0.77	0.83	1.69	0.82	0.86
FeO	23.02	29.61	23.16	25.37	24.77	24.98	24.49	22.36	23.45	25.71	25.97	18.99	19.73	20.07	22.78	19.77	17.63	21.13	18.78
Cr_2O_3	0.00	0.03	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.02	0.02	0.04	0.02	0.01	0.04	0.03	0.02	0.03
MnO	0.28	0.55	0.54	0.59	0.48	0.56	0.58	0.54	0.60	0.64	0.63	0.35	0.55	0.50	0.48	0.48	0.20	0.47	0.45
MgO	20.08	18.09	21.12	19.36	20.35	20.37	20.48	21.45	21.83	19.78	18.68	23.85	24.59	23.65	22.30	24.50	25.52	22.44	24.82
CaO	0.00	0.71	0.76	0.75	0.73	0.51	0.54	0.81	0.51	0.62	0.88	1.28	0.61	0.57	0.43	0.63	0.98	0.65	0.59
Na_2O	0.64	0.36	0.00	0.16	0.05	0.38	0.00	0.15	0.15	0.16	0.21	0.00	0.35	0.00	0.00	0.25	0.47	0.00	0.05
K_2O	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.02	0.02	0.03	0.02	0.02	0.00	0.03	0.03	0.00
Total	100.48	104.49	100.09	99.52	100.06	100.04	100.04	99.99	99.98	99.99	100.04	99.98	100.28	99.99	99.95	100.03	99.98	100.06	100.08
WO	0.00	1.43	1.56	1.56	1.49	1.05	1.11	1.68	1.02	1.28	1.85	2.58	1.20	1.16	0.86	1.25	1.94	1.34	1.18
EN	60.57	50.94	60.41	56.18	58.07	58.09	58.62	61.49	61.16	56.50	54.55	66.95	67.54	66.42	62.55	67.47	70.45	64.05	68.89
FS	39.43	47.63	38.03	42.26	40.44	40.86	40.27	36.83	37.82	42.23	43.60	30.47	31.26	32.42	36.60	31.28	27.61	34.61	29.94
En #	60.57	51.68	61.37	57.07	58.95	58.70	59.28	62.54	61.79	57.23	55.57	68.73	68.36	67.20	63.09	68.32	71.84	64.92	69.71
TSi	2.01	1.99	2.01	2.00	1.99	1.98	2.01	2.01	1.97	1.98	2.01	2.01	1.96	2.01	1.98	1.96	1.93	2.02	1.99
TAl	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.00	0.03	0.02	0.00	0.00	0.03	0.00	0.02	0.04	0.07	0.00	0.01
TFe3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
M1Al	0.10	0.03	0.03	0.03	0.02	0.01	0.03	0.04	0.00	0.01	0.03	0.04	0.00	0.03	0.01	0.00	0.00	0.04	0.03
M1Ti	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01
M1Fe3	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.04	0.02	0.00	0.00	0.06	0.00	0.00	0.05	0.09	0.00	0.00
M1Fe2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M1Mg	0.90	0.97	0.96	0.97	0.97	0.95	0.97	0.96	0.96	0.97	0.97	0.96	0.94	0.97	0.98	0.94	0.90	0.96	0.97
M2Mg	0.22	0.02	0.22	0.13	0.17	0.19	0.18	0.24	0.26	0.14	0.09	0.35	0.40	0.34	0.26	0.40	0.48	0.28	0.39
M2Fe2	0.72	0.91	0.73	0.81	0.78	0.74	0.77	0.70	0.69	0.80	0.83	0.58	0.53	0.62	0.71	0.55	0.44	0.66	0.58
M2Mn	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.01
M2Ca	0.00	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.03	0.04	0.05	0.02	0.02	0.02	0.03	0.04	0.03	0.02
M2Na	0.05	0.03	0.00	0.01	0.00	0.03	0.00	0.01	0.01	0.01	0.02	0.00	0.03	0.00	0.00	0.02	0.03	0.00	0.00
M2K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum_cat	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Plagioclase Core																		
Sample	D2.334a	D2.334b	D2.356a	D2.356b	D2.356c	D2.383a	D2.383b	D2.383c	D2.399a	D2.399b	D2.431a	D2.431b	D2.441c	D2.441d	D2.467a	D2.467b	D2.484a	D2.484b
Depth*	111	111	89	89	89	62	62	62	46	46	14	14	4	4	-22	-22	-39	-39
SiO_2	54.40	55.55	55.53	55.10	56.02	54.32	53.64	51.69	55.59	53.89	54.04	52.86	52.35	51.31	51.68	51.30	51.04	51.00
TiO_2	0.01	0.00	0.04	0.00	0.00	0.01	0.01	0.02	0.01	0.00	0.04	0.05	0.04	0.03	0.02	0.02	0.00	0.02
Al_2O_3	26.46	27.17	27.94	28.62	28.39	28.61	28.93	28.62	28.76	28.71	27.85	28.38	29.37	28.52	27.40	27.72	28.79	29.15
FeO	0.19	0.19	0.37	0.25	0.34	0.31	0.29	0.24	0.33	0.27	0.48	0.28	0.39	0.25	0.37	0.34	0.26	0.30
MnO	0.00	0.03	0.00	0.01	0.00	0.07	0.00	0.02	0.00	0.00	0.03	0.01	0.00	0.03	0.00	0.00	0.00	0.00
MgO	0.03	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CaO	9.96	9.78	11.32	10.91	11.43	11.72	11.86	11.61	11.84	12.21	12.31	12.17	12.97	12.72	14.23	13.65	14.97	14.60
Na_2O	4.63	6.06	5.46	4.57	5.08	4.90	4.94	5.03	4.31	4.15	3.93	3.77	4.53	3.68	3.40	4.60	3.83	2.72
K_2O	0.32	0.36	0.38	0.31	0.42	0.35	0.23	0.26	0.26	0.28	0.28	0.28	0.33	0.27	0.32	0.33	0.28	0.28
Total	96.02	99.13	101.03	99.77	101.75	100.29	99.92	97.49	101.10	99.50	99.06	97.80	99.97	96.79	97.42	97.97	99.18	98.07
Ab	44.70	51.80	45.60	42.30	43.50	42.20	42.40	43.30	39.20	37.40	36.00	35.30	38.00	33.80	29.60	37.20	31.20	24.80
An	53.20	46.20	52.30	55.80	54.10	55.80	56.30	55.20	59.30	60.90	62.30	63.00	60.20	64.60	68.50	61.00	67.30	73.60
Or	2.10	2.00	2.10	1.90	2.40	2.00	1.30	1.50	1.50	1.70	1.70	1.70	1.80	1.60	1.80	1.80	1.50	1.60
An#	54.34	47.14	53.42	56.88	55.43	56.94	57.04	56.04	60.20	61.95	63.38	64.09	61.30	65.65	69.83	62.12	68.32	74.80
Si	10.17	10.11	9.96	9.94	9.95	9.82	9.73	9.63	9.92	9.80	9.87	9.77	9.55	9.62	9.68	9.59	9.43	9.47
Al	5.83	5.82	5.90	6.08	5.94	6.09	6.18	6.28	6.04	6.15	5.99	6.18	6.31	6.30	6.04	6.10	6.27	6.38
Ti	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Fe2	0.03	0.03	0.06	0.04	0.05	0.05	0.05	0.04	0.05	0.04	0.07	0.04	0.06	0.04	0.06	0.05	0.04	0.05
Mn	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	2.00	1.91	2.17	2.11	2.18	2.27	2.31	2.32	2.26	2.38	2.41	2.41	2.53	2.56	2.86	2.73	2.96	2.91
Na	1.68	2.14	1.90	1.60	1.75	1.72	1.74	1.82	1.49	1.46	1.39	1.35	1.60	1.34	1.24	1.67	1.37	0.98
K	0.08	0.08	0.09	0.07	0.10	0.08	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.06	0.08	0.08	0.07	0.07
Sum_cat	19.79	20.08	20.07	19.84	19.99	20.03	20.06	20.15	19.83	19.89	19.85	19.83	20.13	19.92	19.95	20.22	20.14	19.85

Plagioclase Core												
Sample	D2.507a	D2.507b	D2.507c	D2.521a	D2.521b	D2.521c	D2.533a	D2.533b	D2.558a	D2.558b	D2.593a	D2.593b
Depth*	-62	-62	-62	-76	-76	-76	-88	-88	-113	-113	-148	-148
SiO_2	52.69	51.82	50.79	49.78	49.54	48.12	51.30	50.63	48.12	49.66	41.51	50.24
TiO_2	0.07	0.02	0.02	0.05	0.02	0.03	0.00	0.02	0.00	0.03	0.01	0.03
Al_2O_3	28.79	28.36	29.00	28.30	27.87	27.74	27.00	28.05	27.50	27.32	25.57	30.02
FeO	0.39	0.45	0.34	0.37	0.37	0.36	0.30	0.37	0.33	0.36	0.15	0.31
MnO	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.01
MgO	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CaO	14.68	14.72	15.31	15.32	14.72	14.80	13.99	14.68	14.95	14.48	9.11	12.93
Na_2O	3.83	4.04	2.42	2.63	2.63	2.89	3.71	3.20	3.42	3.39	3.16	2.75
K_2O	0.30	0.32	0.26	0.25	0.28	0.26	0.25	0.26	0.20	0.19	0.11	0.19
Total	100.75	99.90	98.13	96.71	95.43	94.20	96.56	97.43	94.55	95.42	79.62	96.49
Ab	31.50	32.60	21.90	23.40	24.00	25.70	32.00	27.60	29.00	29.40	38.30	27.40
An	66.90	65.70	76.60	75.20	74.30	72.80	66.60	70.90	69.90	69.50	60.90	71.30
Or	1.60	1.70	1.60	1.40	1.70	1.50	1.40	1.50	1.10	1.10	0.90	1.30
An#	67.99	66.84	77.77	76.27	75.58	73.91	67.55	71.98	70.68	70.27	61.39	72.24
Si	9.56	9.51	9.44	9.42	9.48	9.36	9.69	9.51	9.35	9.52	9.40	9.43
Al	6.15	6.13	6.35	6.31	6.28	6.36	6.01	6.20	6.30	6.17	6.82	6.63
Ti	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Fe2	0.06	0.07	0.05	0.06	0.06	0.06	0.05	0.06	0.05	0.06	0.03	0.05
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ca	2.85	2.90	3.05	3.11	3.02	3.08	2.83	2.99	3.11	2.97	2.21	2.60
Na	1.35	1.44	0.87	0.97	0.98	1.09	1.36	1.16	1.29	1.26	1.39	1.00
K	0.07	0.08	0.06	0.06	0.07	0.07	0.06	0.06	0.05	0.05	0.03	0.05
Sum_cat	20.05	20.17	19.83	19.92	19.89	20.02	20.00	19.99	20.16	20.03	19.89	19.76

Plagioclase Rim																		
Sample	D2.334a	D2.334b	D2.356a	D2.356b	D2.356c	D2.383a	D2.383b	D2.383c	D2.399a	D2.399b	D2.431a	D2.431b	D2.441c	D2.441d	D2.467a	D2.467b	D2.484a	D2.484b
Depth*	111	111	89	89	89	62	62	62	46	46	14	14	4	4	-22	-22	-39	-39
SiO_2	54.49	55.12	55.42	55.14	56.64	56.31	55.00	53.10	54.44	54.65	52.75	53.86	52.65	50.27	52.06	52.50	50.70	53.09
TiO_2	0.02	0.00	0.03	0.01	0.00	0.01	0.04	0.00	0.02	0.00	0.02	0.02	0.07	0.00	0.03	0.00	0.04	0.01
Al_2O_3	26.83	27.36	28.36	28.70	28.30	29.37	27.40	29.54	28.97	28.84	27.70	28.08	29.06	29.01	27.81	27.70	29.97	28.87
FeO	0.17	0.19	0.29	0.31	0.32	0.36	0.30	0.21	0.35	0.27	0.27	0.31	0.24	0.29	0.30	0.34	0.40	0.26
MnO	0.00	0.00	0.05	0.00	0.04	0.03	0.01	0.00	0.00	0.01	0.00	0.00	0.02	0.05	0.00	0.02	0.02	0.01
MgO	0.00	0.00	0.02	0.00	0.00	0.00	0.19	0.00	0.00	0.02	0.04	0.00	0.00	0.00	0.02	0.00	0.00	0.00
CaO	9.95	9.73	11.33	11.17	11.30	11.62	10.46	11.85	11.97	11.91	12.46	11.77	12.46	12.60	14.16	13.81	15.78	14.00
Na_2O	4.96	5.80	4.82	6.09	5.33	4.77	5.24	3.72	4.40	4.61	4.40	5.08	4.36	3.21	3.36	3.40	3.02	4.00
K_2O	0.30	0.34	0.30	0.30	0.30	0.31	0.34	0.16	0.26	0.30	0.29	0.34	0.23	0.27	0.31	0.35	0.21	0.32
Total	96.72	98.53	100.61	101.73	102.24	102.78	98.97	98.58	100.44	100.60	97.93	99.45	99.09	95.70	98.03	98.12	100.14	100.57
Ab	46.60	50.90	42.80	48.90	45.30	41.90	46.60	35.80	39.30	40.50	38.30	43.00	38.20	31.00	29.50	30.20	25.40	33.50
An	51.60	47.10	55.50	49.50	53.00	56.30	51.40	63.20	59.10	57.80	60.00	55.10	60.40	67.30	68.70	67.80	73.40	64.70
Or	1.80	2.00	1.80	1.60	1.70	1.80	2.00	1.00	1.60	1.80	1.60	1.90	1.30	1.70	1.80	2.00	1.20	1.80
An#	52.55	48.06	56.46	50.30	53.92	57.33	52.45	63.84	60.06	58.80	61.04	56.17	61.26	68.46	69.96	69.18	74.29	65.89
Si	10.12	10.08	9.94	9.84	10.01	9.89	10.03	9.71	9.80	9.83	9.78	9.83	9.64	9.52	9.67	9.73	9.28	9.62
Al	5.87	5.89	5.99	6.03	5.89	6.08	5.88	6.36	6.14	6.11	6.05	6.03	6.27	6.47	6.09	6.05	6.46	6.16
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00
Fe2	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.03	0.05	0.04	0.04	0.05	0.04	0.05	0.05	0.05	0.06	0.04
Mn	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Mg	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Ca	1.98	1.91	2.18	2.14	2.14	2.19	2.04	2.32	2.31	2.29	2.48	2.30	2.45	2.56	2.82	2.74	3.10	2.72
Na	1.79	2.06	1.68	2.11	1.83	1.63	1.85	1.32	1.54	1.61	1.58	1.80	1.55	1.18	1.21	1.22	1.07	1.41
K	0.07	0.08	0.07	0.07	0.07	0.07	0.08	0.04	0.06	0.07	0.07	0.08	0.05	0.07	0.07	0.08	0.05	0.07
Sum_Cat	19.86	20.04	19.92	20.23	19.99	19.91	19.98	19.78	19.91	19.95	20.01	20.08	20.00	19.85	19.91	19.89	20.03	20.03

Plagioclase Rim												
Sample	D2.507a	D2.507b	D2.507c	D2.521a	D2.521b	D2.521c	D2.532a	D2.532b	D2.558a	D2.558b	D2.593a	D2.593b
Depth*	-62	-62	-62	-76	-76	-76	-88	-88	-113	-113	-148	-148
SiO_2	52.30	52.55	50.21	49.57	48.45	48.17	49.38	49.58	49.77	49.55	43.18	50.14
TiO_2	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Al_2O_3	28.91	28.65	27.84	28.58	28.32	27.13	27.10	28.31	27.19	27.43	25.50	30.70
FeO	0.33	0.35	0.33	0.43	0.36	0.36	0.29	0.38	0.35	0.36	0.20	0.30
MnO	0.02	0.00	0.00	0.02	0.01	0.00	0.05	0.02	0.02	0.00	0.00	0.01
MgO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
CaO	14.81	14.61	15.09	15.10	15.18	14.30	14.85	15.61	14.30	14.81	9.44	13.48
Na_2O	3.78	3.19	3.10	3.02	2.80	2.89	3.96	3.20	3.46	3.26	2.78	3.14
K_2O	0.32	0.33	0.24	0.25	0.22	0.27	0.23	0.21	0.20	0.21	0.14	0.15
Total	100.48	99.71	96.82	96.97	95.35	93.12	95.87	97.35	95.29	95.64	81.25	97.92
Ab	31.00	27.80	26.70	26.20	24.70	26.40	32.20	26.70	30.10	28.10	34.40	29.40
An	67.20	70.30	71.90	72.40	74.00	72.00	66.60	72.10	68.70	70.70	64.50	69.70
Or	1.70	1.90	1.30	1.40	1.30	1.60	1.20	1.20	1.10	1.20	1.10	0.90
An#	68.43	71.66	72.92	73.43	74.97	73.17	67.41	72.98	69.53	71.56	65.22	70.33
Si	9.52	9.61	9.49	9.37	9.32	9.46	9.47	9.36	9.55	9.49	9.56	9.31
Al	6.20	6.17	6.20	6.36	6.41	6.28	6.12	6.29	6.15	6.19	6.65	6.71
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fe2	0.05	0.05	0.05	0.07	0.06	0.06	0.05	0.06	0.06	0.06	0.04	0.05
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Mg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Ca	2.89	2.86	3.06	3.06	3.13	3.01	3.05	3.16	2.94	3.04	2.24	2.68
Na	1.34	1.13	1.14	1.11	1.05	1.10	1.47	1.17	1.29	1.21	1.19	1.13
K	0.08	0.08	0.06	0.06	0.05	0.07	0.06	0.05	0.05	0.05	0.04	0.04
Sum_cat	20.07	19.90	20.00	20.03	20.02	19.98	20.23	20.10	20.03	20.04	19.72	19.91

APPENDIX 5: XRF STANDARDS

Standards used for calibration of PW1400 XRFS for silicate analysis

The X-Ray tube used is a rhodium tube and is run at 50Kv and 50Ma. The method used is described by Norrish and Hutton, 1969.

Standard	%Fe_2O_3	%MnO	%TiO_2	%CaO	%K_2O	%P_2O_5	%SiO_2	%Al_2O_3	%MgO	%Na_2O	%LOI	%Total
NIM-G	2.02	0.02	0	0.79	5.03	0.01	76.31	12.18	0.06	3.39	0.45	100.42
NIM-S	1.41	0.01	0	0.68	15.4	0.12	63.85	17.4	0.46	0.43	0.28	99.7
NIM-N	8.96	0.18	0.2	11.49	0.25	0.03	52.57	16.48	7.49	2.46	-0.4	99.83
NIM-D	16.87	0.22	0.02	0.28	0.01	0.01	38.66	0.3	43.18	0.04	-0.93	99.42
NIM-P	12.77	0.22	0.2	2.67	0.09	0.02	51.39	4.2	25.47	0.37	-0.84	96.03
AN-G	3.39	0.04	0.22	16.03	0.13	0.01	46.67	30.04	1.81	1.64	0.65	99.84
AC-E	2.54	0.06	0.11	0.34	4.51	0.01	70.63	14.76	0.03	6.57	0.37	99.53
MA-N	0.47	0.04	0.01	0.59	3.19	1.4	66.86	17.69	0.04	5.86	1.82	97.6
ABV-1	6.79	0.1	1.06	4.96	2.91	0.48	59.48	17.22	1.54	4.27	1.59	100.01
FK-N	0.09	0.01	0.02	0.11	12.88	0.02	65.37	18.71	0.01	2.59	0.54	99.82
BHVO-1	12.15	0.17	2.69	11.33	0.52	0.27	49.61	13.71	7.18	2.25	-0.71	99.82

Analytical precision for major element analysis

The analysis are based on 107 duplicate samples representing 6 calibrations. New fusion discs and pellets were prepared for each machine calibration. For this reason the statistics presented should represent the total analytical uncertainty in the procedure, including sample preparation.

Element	Fe_2O_3	MnO	TiO_2	CaO	K_2O	P_2O_5	SiO_2	Al_2O_3	MgO	Na_2O	LOI	Total
Standard Deviation	0.24	0.01	0	0.23	0.07	0.01	0.73	0.36	0.22	0.44	0.08	1.16
Average % Error	-0.6	1.6	0.4	0.6	-5.2	0.4	1.1	3.8	-3.1	11.2	0.7	0.9

APPENDIX 6: XRF WHOLE ROCK GEOCHEMISTRY DATA

The following pages, from lxvi - lxxii, contain the full analyses for the XRF data, acquired from the University of the Witwatersrand. A representative table, containing data from both D1 and D2 is presented within Chapter 7. Any data recalculations were carried out using the software program "Minpet". C_I is the classification index and D_I is the differentiation index in the following tables.

Sample	D1.259	D1.265	D1.269	D1.276	D1.282	D1.288	D1.293	D1.298	D1.304	D1.309	D1.312	D1.316	D1.322	D1.327
Depth*	-19	-25	-29	-36	-42	-48	-53	-58	-64	-69	-72	-76	-82	-87
SiO_2	53.87	53.63	52.01	55.28	57.46	53.62	52.25	52.11	50.84	52.86	54.53	53.23	54.19	53.17
TiO_2	0.22	0.21	0.16	0.23	0.33	0.26	0.23	0.23	0.21	0.24	0.29	0.20	0.19	0.18
Al_2O_3	17.19	17.59	20.73	15.00	16.58	18.33	25.04	24.23	25.57	24.85	23.44	21.17	20.67	20.03
Fe_2O_3	6.51	6.55	4.69	6.68	6.03	6.78	2.91	4.19	2.93	3.41	2.73	5.07	4.36	6.03
MnO	0.14	0.14	0.15	0.16	0.12	0.13	0.06	0.09	0.07	0.07	0.06	0.08	0.07	0.12
MgO	6.84	7.29	5.03	8.32	6.57	8.65	2.08	3.84	2.19	3.00	2.37	5.56	5.15	7.58
CaO	10.47	11.21	11.37	11.02	8.61	9.59	10.73	11.93	13.16	11.62	11.39	10.84	10.28	10.20
Na_2O	2.78	2.05	3.17	2.46	2.76	2.14	3.37	3.13	2.77	3.00	2.68	2.52	2.17	2.30
K_2O	0.65	0.66	1.44	0.93	1.39	0.69	0.84	0.80	0.55	0.78	1.30	0.72	0.72	0.66
P_2O_5	0.03	0.02	0.03	0.02	0.04	0.02	0.03	0.04	0.04	0.07	0.05	0.03	0.03	0.02
LOI	1.99	1.04	1.86	0.38	1.25	0.54	2.61	0.47	0.76	0.81	1.08	0.82	1.24	0.14
Total	100.67	100.38	100.64	100.48	101.13	100.77	100.15	100.86	99.08	100.70	99.92	100.23	99.06	100.42
Mg#	67.5	68.8	68.0	71.1	68.3	71.6	58.6	64.5	59.7	63.6	63.2	68.5	70.1	71.3
Zn	58	58	59	57	68	55	41	35	28	36	27	46	37	43
Cu	1	1	26	6	2	30	31	2	8	2	0	3	2	2
Ni	136	143	99	167	142	193	43	78	39	64	44	118	108	158
Co	33	31	25	35	31	33	13	18	12	15	14	25	22	28
Nb	5	5	5	7	12	5	5	5	4	5	7	5	6	5
Zr	73	95	61	81	112	52	89	42	44	48	51	51	64	46
Y	14	16	23	30	29	11	13	7	6	11	15	10	9	11
Sr	210	220	268	187	184	212	307	280	300	285	274	246	237	247
Rb	27	28	55	41	73	25	29	24	18	26	37	27	26	26
Cr	68	44	81	79	136	209	65	86	74	60	60	101	220	396
V	128	120	87	145	91	93	59	59	57	48	59	74	78	84
Ba	147	154	394	259	192	182	178	126	128	188	28	96	178	165
Sr/Al	12.20	12.52	12.93	12.49	11.12	11.57	12.27	11.55	11.74	11.47	11.70	11.60	11.47	12.34
Cr/Co	2.05	1.41	3.25	2.25	4.46	6.28	5.19	4.70	5.92	4.14	4.29	4.11	10.15	14.11
Co/V	0.26	0.26	0.29	0.24	0.34	0.36	0.21	0.31	0.22	0.31	0.24	0.33	0.28	0.33
Cr/V	0.53	0.37	0.94	0.55	1.50	2.24	1.12	1.45	1.29	1.27	1.01	1.37	2.81	4.69
Q	3.23	4.74	0	3.6	7.69	3.31	2.49	0	1.75	2.58	6.64	3.59	8.33	2.49
Or	3.89	3.94	8.65	5.54	8.27	4.1	5.08	3.55	3.33	4.62	7.77	4.32	4.36	3.89
Ab	23.93	17.55	27.28	20.92	23.47	18.17	29.29	26.49	23.88	25.47	23	21.54	18.87	19.52
An	33.14	37.29	38.67	27.23	28.92	38.49	52.13	50.24	56.78	52.22	48.75	44.75	45.65	42.45
Di	15.82	15.17	14.9	22.11	11.12	7.31	1.93	7.04	7.77	4.22	6.65	7.58	5.23	6.55
DiWo	8.17	7.85	7.7	11.47	5.76	3.8	0.99	3.63	3.98	2.17	3.43	3.93	2.71	3.4
DiEn	5.17	5.05	4.89	7.58	3.71	2.53	0.57	2.24	2.32	1.33	2.13	2.52	1.78	2.25
DiFs	2.47	2.28	2.31	3.05	1.65	0.98	0.37	1.18	1.47	0.71	1.09	1.14	0.74	0.9
Hy	17.89	19.24	2.31	18.44	18.3	26.39	7.81	11.09	5.24	9.42	5.8	16.52	16.03	23.23
HyEn	12.1	13.26	1.56	13.14	12.67	19	4.73	7.26	3.21	6.14	3.83	11.39	11.33	16.59
HyFs	5.79	5.98	0.74	5.3	5.63	7.39	3.08	3.83	2.03	3.28	1.96	5.13	4.7	6.64
Ol	0	0	6.64	0	0	0	0	0.03	0	0	0	0	0	0
OlFo	0	0	4.36	0	0	0	0	0.02	0	0	0	0	0	0
OlFa	0	0	2.28	0	0	0	0	0.01	0	0	0	0	0	0
Mt	1.53	1.52	1.11	1.55	1.42	1.57	0.72	0.98	0.71	0.81	0.68	1.18	1.03	1.38
Il	0.42	0.41	0.3	0.44	0.63	0.5	0.45	0.43	0.4	0.45	0.55	0.38	0.37	0.35
Ap	0.06	0.05	0.07	0.05	0.09	0.05	0.07	0.08	0.08	0.15	0.11	0.06	0.06	0.03
C_I	35.66	36.35	25.26	42.54	31.47	35.77	10.9	19.58	14.12	14.91	13.68	25.66	22.65	31.51
D_I	31.05	28.22	35.93	30.07	39.43	25.58	36.87	30.04	28.96	32.67	37.41	29.45	31.56	25.91

Sample	D1.332	D1.338	D1.344	D1.348	D1.355	D1.361	D1.368	D1.374	D1.380	D1.384	D1.392	D1.399	D1.405	D1.409
Depth*	-92	-98	-104	-108	-115	-121	-128	-134	-140	-144	-152	-159	-165	-169
SiO_2	54.89	54.27	52.39	52.53	51.99	50.21	53.38	54.84	51.37	50.53	50.87	51.89	51.32	50.53
TiO_2	0.25	0.27	0.16	0.15	0.28	0.22	0.27	0.27	0.24	0.28	0.21	0.22	0.23	0.19
Al_2O_3	20.90	15.14	19.80	25.94	14.86	26.92	20.88	18.32	19.76	24.48	24.31	24.80	24.91	24.24
Fe_2O_3	4.82	7.91	7.10	2.67	8.74	2.68	5.19	5.86	7.00	4.58	4.58	4.36	4.56	5.19
MnO	0.11	0.15	0.15	0.07	0.16	0.06	0.11	0.13	0.14	0.10	0.10	0.09	0.09	0.10
MgO	5.08	10.40	7.46	2.44	10.20	2.05	5.87	6.61	7.69	3.53	3.59	3.26	3.32	4.27
CaO	10.44	8.93	11.10	12.51	8.60	12.71	10.86	9.22	10.93	12.31	12.83	13.02	12.75	13.64
Na_2O	2.45	1.60	2.11	3.12	1.99	3.01	2.53	2.51	2.18	2.94	2.89	2.81	2.43	2.24
K_2O	0.98	0.81	0.51	0.67	0.66	0.88	0.76	0.64	0.31	0.36	0.35	0.37	0.38	0.31
P_2O_5	0.04	0.05	0.04	0.02	0.06	0.04	0.04	0.05	0.02	0.03	0.03	0.04	0.04	0.04
LOI	0.60	0.18	0.07	0.75	0.09	1.69	0.44	1.54	0.51	0.27	0.80	0.12	0.27	0.00
Total	100.54	99.72	100.88	100.87	97.61	100.46	100.30	99.97	100.14	99.42	100.56	100.97	100.30	100.74
Mg#	67.6	72.3	67.5	64.4	69.8	60.3	69.1	69.1	68.5	60.5	60.8	59.7	59.0	62.0
Zn	47	54	60	25	64	26	41	42	51	43	44	35	36	38
Cu	4	4	3	2	28	21	0	23	9	8	14	3	7	7
Ni	99	223	145	49	219	38	114	137	155	63	66	55	53	70
Co	23	42	31	13	46	15	26	28	33	18	20	17	19	20
Nb	7	6	5	4	4	5	6	7	4	4	3	4	4	3
Zr	66	51	35	46	61	48	56	55	41	71	41	50	43	36
Y	21	9	16	6	10	8	12	12	8	8	10	7	6	7
Sr	251	195	253	318	200	337	269	224	253	327	323	314	316	302
Rb	43	36	26	25	30	34	30	24	11	9	11	9	11	7
Cr	267	602	420	104	505	94	356	433	436	170	189	138	128	192
V	79	126	82	47	130	41	88	99	119	69	82	85	74	108
Ba	171	134	70	159	141	172	56	95	101	148	140	133	134	123
Sr/Al	12.03	12.85	12.77	12.26	13.48	12.51	12.87	12.24	12.81	13.35	13.30	12.66	12.68	12.46
Cr/Co	11.40	14.19	13.59	8.22	10.95	6.09	13.68	15.47	13.23	9.22	9.36	8.23	6.90	9.43
Co/V	0.30	0.34	0.38	0.27	0.35	0.38	0.30	0.28	0.28	0.27	0.24	0.20	0.25	0.19
Cr/V	3.38	4.79	5.14	2.21	3.89	2.31	4.07	4.36	3.67	2.48	2.29	1.62	1.73	1.78
Q	6.27	5.63	1.85	1.5	2.28	0	3.27	7.1	1.09	0	0	1.34	2.57	0.58
Or	5.79	4.83	2.98	3.97	4.01	5.25	4.49	3.84	1.82	2.17	2.08	2.16	2.28	1.83
Ab	20.83	13.68	17.78	26.44	17.4	25.82	21.49	21.65	18.64	25.14	24.59	23.64	20.66	18.86
An	43.32	32.09	42.97	54.8	30.65	58.19	43.62	37.62	43.63	53.18	52.63	53.69	56.07	54.99
Di	6.84	9.92	9.5	5.85	10.51	4.48	8.31	7.06	8.85	6.87	9.13	8.41	5.83	9.93
DiWo	3.54	5.16	4.91	3.01	5.45	2.3	4.31	3.66	4.58	3.52	4.68	4.31	2.98	5.1
DiEn	2.26	3.45	3.09	1.85	3.54	1.36	2.8	2.37	2.94	2.06	2.74	2.49	1.71	3.01
DiFs	1.04	1.31	1.5	0.99	1.52	0.82	1.2	1.03	1.34	1.28	1.71	1.62	1.14	1.82
Hy	15.2	31.24	22.83	6.44	32.3	2.25	16.91	20.62	23.75	10.45	9.53	9.19	10.94	12.1
HyEn	10.4	22.64	15.37	4.2	22.6	1.4	11.83	14.37	16.32	6.45	5.86	5.57	6.56	7.54
HyFs	4.8	8.6	7.46	2.24	9.7	0.85	5.09	6.25	7.43	4	3.67	3.63	4.38	4.56
Ol	0	0	0	0	0	2.8	0	0	0	0.42	0.44	0	0	0
OlFo	0	0	0	0	0	1.68	0	0	0	0.25	0.26	0	0	0
OlFa	0	0	0	0	0	1.12	0	0	0	0.17	0.18	0	0	0
Mt	1.13	1.84	1.61	0.63	2.06	0.65	1.22	1.39	1.62	1.09	1.07	1.01	1.07	1.19
Il	0.48	0.53	0.3	0.28	0.54	0.43	0.51	0.53	0.46	0.54	0.41	0.41	0.44	0.37
Ap	0.08	0.11	0.08	0.04	0.12	0.1	0.08	0.1	0.04	0.08	0.06	0.09	0.09	0.08
C_I	23.64	43.53	34.24	13.2	45.42	10.61	26.96	29.6	34.68	19.37	20.58	19.03	18.28	23.59
D_I	32.88	24.15	22.62	31.91	23.68	31.06	29.25	32.58	21.55	27.31	26.67	27.13	25.51	21.27

Sample	D1.413	D1.419	D1.422	D1.430	D1.433	D1.435	D1.437	D1.441	D1.446	D1.452	D1.458	D1.464	D1.467	D1.468
Depth*	-173	-179	-182	-190	-193	-195	-197	-201	-206	-212	-218	-224	-227	-228
SiO_2	49.66	50.63	50.10	49.19	48.57	50.17	47.44	49.96	50.55	48.64	50.73	49.71	49.46	50.59
TiO_2	0.17	0.28	0.12	0.14	0.11	0.15	0.11	0.12	0.11	0.09	0.11	0.15	0.13	0.15
Al_2O_3	27.70	27.41	27.96	21.04	29.36	21.50	28.58	29.09	30.83	29.18	26.36	26.42	28.42	20.11
Fe_2O_3	2.73	2.66	2.37	5.88	1.72	6.39	3.36	2.79	1.65	1.73	2.85	3.41	2.41	6.01
MnO	0.11	0.06	0.06	0.12	0.06	0.12	0.07	0.06	0.05	0.05	0.06	0.07	0.06	0.12
MgO	2.01	2.27	2.71	8.45	2.04	8.82	2.18	2.91	1.68	1.75	3.39	4.05	2.49	10.24
CaO	13.94	13.62	14.01	11.51	14.92	10.78	14.62	14.36	14.90	14.40	12.87	13.22	14.12	10.63
Na_2O	2.73	2.74	2.55	1.67	2.58	1.74	1.77	2.32	2.47	2.64	2.09	2.21	2.43	1.96
K_2O	0.38	0.37	0.30	0.15	0.27	0.24	0.24	0.23	0.32	0.30	0.30	0.24	0.25	0.21
P_2O_5	0.02	0.04	0.03	0.04	0.01	0.02	0.01	0.03	0.02	0.03	0.01	0.01	0.02	0.01
LOI	1.10	0.69	0.24	1.82	0.70	0.26	1.64	0.70	0.73	1.02	1.71	0.79	1.07	0.12
Total	100.55	100.77	100.44	100.02	100.33	100.19	100.00	102.57	103.31	99.82	100.48	100.27	100.87	99.92
Mg#	59.3	62.9	69.3	74.0	70.2	73.2	56.3	67.3	66.8	66.7	70.2	70.2	67.2	77.2
Zn	26	26	22	119	21	47	26	22	17	21	20	29	25	48
Cu	3	3	3	27	10	11	642	56	51	37	6	151	68	30
Ni	37	37	44	202	43	195	1667	133	100	114	118	229	169	229
Co	13	13	11	37	10	36	33	14	10	10	16	18	13	32
Nb	4	4	4	3	3	3	4	3	3	3	4	3	3	3
Zr	35	38	35	26	30	31	33	34	32	32	46	35	36	39
Y	5	5	3	6	4	4	3	3	3	3	4	4	4	7
Sr	345	331	329	244	349	256	409	366	361	365	343	368	369	256
Rb	12	8	7	7	7	10	7	5	7	5	9	7	6	5
Cr	98	99	150	1076	166	754	148	218	124	181	354	283	217	1134
V	54	64	49	94	38	74	33	42	29	28	39	51	43	65
Ba	144	121	97	57	101	74	67	89	112	94	76	95	92	80
Sr/Al	12.46	12.08	11.77	11.58	11.90	11.90	14.31	12.59	11.72	12.50	13.01	13.94	12.99	12.74
Cr/Co	7.37	7.81	13.57	28.76	17.33	21.16	4.43	15.87	12.80	18.12	22.31	15.36	16.79	34.93
Co/V	0.24	0.20	0.23	0.40	0.25	0.48	1.00	0.33	0.34	0.36	0.40	0.36	0.30	0.50
Cr/V	1.81	1.56	3.07	11.47	4.31	10.15	4.44	5.21	4.31	6.55	8.97	5.51	5.09	17.45
Q	0	0.77	0	0	0	0	0.49	0	0.07	0	3.77	0.6	0	0
Or	2.25	2.21	1.8	0.93	1.57	1.44	1.45	1.36	1.84	1.78	1.79	1.41	1.5	1.26
Ab	23.27	23.18	21.55	14.49	18.89	14.83	15.23	19.27	20.37	22.62	17.92	18.85	20.64	16.7
An	62.67	61.47	63.93	50.59	68.05	50.41	70.66	67.16	70.37	67.78	62.56	61.93	66.12	45.61
Di	5.58	4.82	4.34	6.04	5.08	2.59	2.62	2.23	1.33	3.6	1.75	3.32	3.31	5.81
DiWo	2.86	2.49	2.25	3.15	2.64	1.34	1.33	1.15	0.69	1.86	0.91	1.72	1.71	3.04
DiEn	1.64	1.54	1.47	2.14	1.73	0.91	0.72	0.73	0.44	1.17	0.59	1.13	1.09	2.14
DiFs	1.08	0.8	0.63	0.76	0.71	0.33	0.56	0.35	0.21	0.57	0.25	0.47	0.51	0.64
Hy	3.82	6.24	7.47	25.98	0	28.72	8.49	8.01	5.36	0.24	11.25	12.73	7.51	24.92
HyEn	2.3	4.1	5.24	19.2	0	20.99	4.79	5.43	3.63	0.16	7.94	8.99	5.1	19.2
HyFs	1.52	2.14	2.24	6.79	0	7.73	3.7	2.58	1.72	0.08	3.31	3.74	2.41	5.72
Ol	1.32	0	0.01	0.11	3.41	0.11	0	1	0	3.29	0	0	0.03	3.89
OlFo	0.76	0	0.01	0.08	2.35	0.08	0	0.65	0	2.14	0	0	0.02	2.93
OlFa	0.56	0	0	0.03	1.06	0.03	0	0.34	0	1.15	0	0	0.01	0.96
Mt	0.66	0.65	0.56	1.37	0.41	1.46	0.78	0.64	0.39	0.41	0.67	0.8	0.57	1.37
Il	0.33	0.53	0.24	0.28	0.21	0.28	0.21	0.22	0.19	0.18	0.22	0.28	0.24	0.29
Ap	0.05	0.08	0.05	0.09	0.01	0.05	0.03	0.06	0.04	0.06	0.02	0.02	0.04	0.03
C_I	11.71	12.25	12.62	33.79	9.11	33.16	12.1	12.09	7.27	7.71	13.89	17.13	11.66	36.28
D_I	25.52	26.16	23.35	15.42	22.12	16.27	17.18	20.63	22.28	24.41	23.48	20.85	22.14	17.96

Sample	D1.476	D1.486	D1.488	D1.493	D1.497	D1.503	D1.509	D1.514	D1.520	D1.526	D1.533	D1.538	D1.545	D1.550
Depth*	-236	-246	-248	-253	-257	-263	-269	-274	-280	-286	-293	-298	-305	-310
SiO_2	49.14	52.36	53.64	52.23	50.21	51.34	50.19	51.90	52.76	51.85	52.12	52.04	52.93	50.57
TiO_2	0.16	0.15	0.17	0.14	0.12	0.14	0.14	0.15	0.18	0.13	0.17	0.16	0.18	0.13
Al_2O_3	26.75	17.86	17.11	18.41	28.27	19.66	19.91	17.26	15.10	17.87	13.86	13.54	9.39	14.36
Fe_2O_3	3.25	6.10	6.36	5.11	1.90	5.09	5.12	5.58	6.29	5.88	7.12	7.61	9.45	7.26
MnO	0.08	0.13	0.13	0.12	0.06	0.11	0.11	0.15	0.14	0.14	0.15	0.16	0.19	0.16
MgO	3.46	11.67	12.81	10.17	2.27	9.79	10.19	12.03	13.47	12.84	15.22	15.99	19.98	15.14
CaO	14.49	10.59	9.24	12.35	14.33	10.13	11.03	10.09	8.89	9.37	8.27	7.30	5.44	7.76
Na_2O	2.10	1.49	1.53	1.73	2.54	1.85	2.09	1.56	1.98	1.60	1.47	1.32	0.93	1.82
K_2O	0.18	0.26	0.40	0.25	0.30	0.32	0.15	0.34	0.36	0.20	0.32	0.24	0.26	0.23
P_2O_5	0.00	0.01	0.01	0.01	0.02	0.03	0.01	0.00	0.02	0.00	0.01	0.01	0.00	0.01
LOI	0.24	0.07	0.12	0.26	0.20	0.05	0.05	0.08	0.35	0.06	0.15	0.64	0.05	0.10
Total	99.84	100.70	101.51	100.77	100.23	98.50	98.88	99.14	99.53	99.82	98.85	99.00	98.78	97.34
Mg#	67.8	79.1	80.0	79.8	70.2	79.2	79.8	81.0	80.9	81.2	80.9	80.6	80.7	80.5
Zn	25	40	43	34	17	38	34	36	46	41	52	58	64	56
Cu	198	4	6	5	12	8	5	10	17	5	2	1	27	9
Ni	794	254	264	228	55	220	221	245	295	275	354	361	460	361
Co	22	34	41	34	11	35	32	40	42	39	53	54	71	53
Nb	4	4	4	4	3	3	3	5	4	3	4	4	3	3
Zr	32	32	32	33	36	40	30	31	52	32	31	45	26	27
Y	6	4	5	7	3	3	3	5	5	3	6	5	4	4
Sr	364	261	228	270	398	296	299	239	203	252	197	196	129	215
Rb	5	8	13	6	7	13	6	12	13	8	13	11	16	10
Cr	325	1084	1114	1054	177	889	929	1060	1219	1176	1457	1409	1767	1724
V	52	96	97	109	46	79	78	95	91	69	79	76	95	74
Ba	99	75	109	86	94	90	50	105	115	69	109	91	66	88
Sr/Al	13.60	14.63	13.32	14.66	14.09	15.05	15.02	13.82	13.43	14.09	14.19	14.51	13.78	14.96
Cr/Co	14.62	31.53	27.04	31.02	15.45	25.68	28.74	26.47	28.72	30.26	27.64	26.18	25.03	32.78
Co/V	0.43	0.36	0.42	0.31	0.25	0.44	0.42	0.42	0.47	0.56	0.67	0.71	0.74	0.71
Cr/V	6.25	11.26	11.44	9.68	3.81	11.25	11.96	11.15	13.36	17.05	18.41	18.52	18.56	23.25
Q	0.16	1.55	2.21	0.92	0.54	1.51	0	1.15	0	0.35	0.2	0.91	1.04	0
Or	1.06	1.52	2.34	1.45	1.78	1.92	0.9	2.03	2.15	1.21	1.94	1.45	1.56	1.37
Ab	17.87	12.63	12.86	14.61	21.53	15.94	17.93	13.41	16.97	13.63	12.67	11.39	8	15.89
An	63.45	41.2	38.27	41.71	64.91	45.29	45.17	39.63	31.67	41.21	30.84	31.02	21.12	31.33
Di	7.17	8.92	5.68	15.47	4.91	4.62	8.22	8.85	10.26	4.42	8.65	4.75	5.11	6.66
DiWo	3.71	4.68	2.98	8.11	2.55	2.42	4.31	4.65	5.39	2.32	4.54	2.5	2.68	3.49
DiEn	2.37	3.36	2.16	5.86	1.68	1.74	3.12	3.4	3.94	1.7	3.32	1.82	1.96	2.54
DiFs	1.09	0.89	0.54	1.49	0.68	0.46	0.79	0.8	0.93	0.4	0.79	0.44	0.47	0.63
Hy	9.14	32.34	36.72	24.27	5.54	29.08	20.97	33.21	36.81	37.43	43.51	48.21	60.43	36.16
HyEn	6.26	25.55	29.34	19.34	3.95	23.03	16.71	26.86	29.76	30.33	35.15	38.77	48.64	29.01
HyFs	2.88	6.79	7.38	4.93	1.6	6.05	4.26	6.35	7.05	7.1	8.36	9.44	11.8	7.15
Ol	0	0	0	0	0	0	5.24	0	0.15	0	0	0	0	6.45
OlFo	0	0	0	0	0	0	4.09	0	0.12	0	0	0	0	5.07
OlFa	0	0	0	0	0	0	1.15	0	0.03	0	0	0	0	1.38
Mt	0.77	1.39	1.44	1.17	0.46	1.19	1.19	1.3	1.46	1.35	1.65	1.77	2.18	1.7
Il	0.31	0.29	0.32	0.27	0.24	0.28	0.26	0.29	0.34	0.25	0.34	0.31	0.34	0.26
Ap	0	0.03	0.02	0.02	0.05	0.06	0.01	0	0.03	0	0.03	0.02	0	0.02
C_I	17.39	42.93	44.16	41.18	11.15	35.17	35.87	43.65	49.02	43.45	54.15	55.04	68.07	51.23
D_I	19.1	15.7	17.41	16.97	23.85	19.36	18.83	16.58	19.12	15.2	14.81	13.74	10.6	17.26

Sample	D1.556	D1.560	D1.566	D1.572	D1.578	D1.584	D1.589	D1.593	D1.597	D1.600	D1.606	D1.613	D1.619
Depth*	-316	-320	-326	-332	-338	-344	-349	-353	-357	-360	-366	-373	-379
SiO_2	51.36	51.08	50.16	52.40	51.46	49.34	50.93	48.69	53.41	53.37	55.23	54.14	53.36
TiO_2	0.15	0.14	0.15	0.17	0.17	0.13	0.20	0.28	0.20	0.18	0.26	0.24	0.20
Al_2O_3	14.97	19.64	19.87	18.15	18.00	23.01	17.59	5.29	4.12	7.29	5.12	4.73	5.82
Fe_2O_3	7.55	5.58	5.38	5.86	6.45	4.49	8.05	13.05	11.76	10.53	11.49	11.64	11.24
MnO	0.14	0.12	0.12	0.12	0.13	0.08	0.15	0.23	0.24	0.20	0.21	0.21	0.23
MgO	15.35	10.80	10.15	10.84	11.96	7.61	11.76	23.46	25.50	22.43	22.93	23.90	23.40
CaO	8.08	10.10	10.10	9.00	9.27	11.74	9.31	3.18	3.94	4.41	3.69	3.56	3.75
Na_2O	1.26	1.69	2.03	1.74	1.64	1.86	1.48	0.45	0.22	0.78	0.77	0.69	0.67
K_2O	0.16	0.22	0.29	0.62	0.24	0.16	0.20	0.09	0.08	0.12	0.28	0.21	0.21
P_2O_5	0.00	0.02	0.01	0.02	0.01	0.02	0.03	0.03	0.07	0.02	0.08	0.04	0.03
LOI	0.12	0.18	0.36	0.58	0.29	0.85	0.12	0.37	0.04	0.07	0.27	0.10	0.04
Total	98.89	99.58	98.61	99.48	99.62	99.28	99.58	94.38	99.57	99.24	99.76	99.44	98.87
Mg#	80.1	79.3	78.9	78.6	78.6	77.1	74.3	78.1	81.1	80.8	79.8	80.3	80.5
Zn	50	40	40	45	45	37	58	114	77	74	80	80	79
Cu	7	1	7	18	4	0	1	39	7	11	5	9	3
Ni	381	276	241	257	279	171	249	566	490	428	438	460	451
Co	53	32	30	36	40	25	46	105	87	74	76	84	81
Nb	4	3	3	4	4	3	3	4	3	4	3	4	4
Zr	29	33	37	38	39	31	29	23	21	25	43	35	29
Y	4	4	4	6	4	5	7	7	8	5	9	8	7
Sr	236	281	287	252	257	338	290	59	59	104	73	69	83
Rb	8	9	10	26	10	6	10	11	8	8	14	11	13
Cr	1914	1177	1176	1287	1410	993	1201	32431	3453	2765	2799	2917	2874
V	75	65	64	65	75	59	99	316	116	100	125	125	109
Ba	68	82	104	110	87	73	90	51	27	63	120	94	87
Sr/Al	15.76	14.33	14.46	13.90	14.28	14.70	16.46	11.20	14.46	14.32	14.29	14.68	14.24
Cr/Co	35.94	36.33	36.80	35.92	34.86	39.29	26.36	309.10	39.52	37.42	35.67	34.54	35.30
Co/V	0.71	0.50	0.47	0.55	0.54	0.43	0.46	0.33	0.75	0.74	0.63	0.68	0.75
Cr/V	25.49	18.20	18.39	19.92	18.75	16.89	12.19	102.70	29.79	27.52	22.32	23.34	26.37
Q	0.05	0.54	0	2.25	0.72	0	0.73	0	0.74	0.69	3.05	1.3	0.64
Or	0.94	1.3	1.75	3.7	1.42	0.99	1.18	0.59	0.47	0.74	1.64	1.23	1.29
Ab	10.85	14.46	17.54	14.93	14.07	16.04	12.6	4.07	1.87	6.69	6.55	5.94	5.79
An	35.28	45.83	45.24	40.52	41.53	55	41.19	12.96	10.16	16.27	9.8	9.35	12.48
Di	4.33	3.71	4.72	3.74	3.93	3.43	4.2	2.92	7.29	4.63	6.48	6.63	4.98
DiWo	2.27	1.95	2.47	1.96	2.06	1.79	2.19	1.53	3.83	2.43	3.4	3.48	2.62
DiEn	1.65	1.4	1.77	1.4	1.47	1.26	1.49	1.08	2.8	1.77	2.45	2.52	1.9
DiFs	0.41	0.37	0.48	0.38	0.4	0.37	0.52	0.31	0.66	0.43	0.63	0.63	0.47
Hy	46.35	32.42	25.72	32.98	36.35	22.61	37.67	68.09	75.94	67.95	68.93	72.07	71.52
HyEn	37.05	25.68	20.28	25.93	28.55	17.45	27.97	53.05	61.39	54.76	54.94	57.73	57.36
HyFs	9.31	6.74	5.45	7.05	7.8	5.16	9.7	15.04	14.55	13.19	14	14.34	14.16
Ol	0	0	3.35	0	0	0.5	0	7.34	0	0	0	0	0
OlFo	0	0	2.59	0	0	0.37	0	5.59	0	0	0	0	0
OlFa	0	0	0.77	0	0	0.12	0	1.75	0	0	0	0	0
Mt	1.74	1.29	1.26	1.36	1.49	1.04	1.85	3.16	2.7	2.41	2.63	2.68	2.6
Il	0.3	0.28	0.29	0.34	0.32	0.26	0.38	0.57	0.39	0.35	0.5	0.47	0.38
Ap	0	0.05	0.02	0.04	0.03	0.04	0.07	0.07	0.16	0.04	0.18	0.08	0.07
C_I	52.72	37.69	35.34	38.42	42.09	27.84	44.1	82.07	86.32	75.34	78.54	81.85	79.48
D_I	11.83	16.3	19.28	20.89	16.21	17.03	14.51	4.65	3.09	8.12	11.24	8.47	7.72

Sample	EU-62	EU-65	EU-69	EU-58	EU-67	EU-64	EU-61	EU-66	EU-70	EU-59	EU-63	EU-68	EU-60
Depth*	405	298	298	241	105	62	37	-3	-44	-96	-96	-123	-152
SiO_2	47.82	50.77	51.46	45.80	53.95	50.43	51.85	51.89	51.96	51.76	51.56	51.13	51.62
TiO_2	0.92	0.53	0.38	1.47	0.14	0.47	0.18	0.15	0.19	0.17	0.19	0.08	0.11
Al_2O_3	5.90	15.33	15.14	16.55	26.12	21.25	19.89	19.30	17.36	16.72	17.20	28.96	24.70
Fe_2O_3	18.09	13.44	12.81	16.67	2.79	8.79	8.28	6.26	7.78	7.56	7.21	1.75	4.09
MnO	0.30	0.21	0.20	0.14	0.03	0.09	0.14	0.13	0.15	0.14	0.15	0.02	0.06
MgO	12.20	8.72	9.10	7.47	1.13	4.76	5.40	6.66	8.65	8.77	8.52	0.92	3.62
CaO	11.34	8.46	8.32	9.37	11.10	11.15	11.12	12.92	11.96	12.80	13.22	13.84	12.27
Na_2O	1.22	2.10	2.23	2.93	4.04	2.92	2.88	2.43	2.14	2.05	2.16	2.97	2.40
K_2O	0.09	0.24	0.24	0.14	0.18	0.14	0.11	0.13	0.09	0.07	0.08	0.11	0.28
P_2O_5	0.02	0.02	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
LOI	-0.74	-0.22	-0.13	-0.65	0.25	-0.19	-0.25	0.01	-0.18	-0.17	-0.21	0.12	0.39
Total	100.05	99.75	99.92	100.01	99.89	99.96	99.71	100.02	100.16	99.95	100.25	100.00	99.59
Mg#	57.2	56.2	58.5	47.0	44.5	51.8	56.4	67.8	68.8	69.7	70.1	51.0	63.7
Zn	107	83	83	66	17	43	47	38	44	48	40	15	35
Cu	178	83	70	91	19	121	146	119	56	39	41	26	26
Ni	129	131	133	34	3	80	88	122	135	125	119	10	51
Co	100	69	60	118	11	53	48	27	44	46	39	12	17
Nb	3	4	6	-	-	-	4	-	-	3	3	-	-
Zr	16	-	-	-	-	-	-	6	-	-	-	-	-
Y	9	7	-	-	-	-	-	4	-	-	-	-	6
Sr	80	236	236	277	449	334	319	277	243	235	241	383	307
Rb	3	5	8	-	4	-	-	-	-	-	-	-	9
Cr	-	548	355	-	-	492	23	75	117	174	157	27	77
V	516	264	181	576	58	320	133	100	98	138	121	30	47
Ba	30	81	100	35	111	79	52	75	22	10	34	43	96
Sr/Al	13.56	15.39	15.59	16.74	17.19	15.72	16.04	14.35	14.00	14.06	14.01	13.23	12.43
Cr/Co	-	7.94	5.92	-	-	9.28	0.48	2.78	2.66	3.78	4.03	2.25	4.53
Co/V	0.19	0.26	0.33	0.20	0.19	0.17	0.36	0.27	0.45	0.33	0.32	0.40	0.36
Cr/V	-	2.08	1.96	-	-	1.54	0.17	0.75	1.19	1.26	1.30	0.90	1.64
Q	0	0.64	3.72	1.11	0	0	0	1.29	0.97	3.35	2.18	1.28	0.91
Or	0.83	0.42	1.67	0.66	0.55	0.47	0.83	1.44	0.77	1.07	0.65	1.44	0.53
Ab	15.9	17.45	20.55	24.58	10.71	18.33	24.89	18	20.7	34.44	25.22	19.09	18.18
An	31.85	36.41	56.44	41.35	10.74	37.1	44.77	32.1	41.62	52.97	65.57	30.94	37.62
Di	12.42	22.06	4.19	11.7	38.8	23.09	9.01	8.43	18.48	2.03	2.7	8.73	17.68
DiWo	6.27	11.42	2.15	5.96	19.8	11.96	4.57	4.29	9.55	1.02	1.36	4.46	9.15
DiEn	3.07	7.39	1.3	3.23	11.05	7.78	2.36	2.35	6.04	0.46	0.69	2.5	5.86
DiFs	3.08	3.24	0.74	2.52	7.94	3.34	2.09	1.79	2.89	0.55	0.64	1.77	2.68
Hy	0	20.84	12.22	18.29	27.04	18.13	16.14	34.44	15.65	5.17	3.07	34.68	22.83
HyEn	0	14.49	7.79	10.28	15.74	12.69	8.57	19.57	10.59	2.36	1.6	20.33	15.68
HyFs	0	6.35	4.43	8.01	11.31	5.44	7.57	14.88	5.06	2.81	1.48	14.35	7.16
Ol	23.03	0	0	0	5.78	0.75	1.34	0	0	0	0	0	0
OlFo	10.93	0	0	0	3.22	0.51	0.68	0	0	0	0	0	0
OlFa	12.1	0	0	0	2.56	0.24	0.66	0	0	0	0	0	0
Mt	4.01	1.73	0.94	1.89	4.36	1.65	2.05	3.13	1.43	0.65	0.4	2.95	1.78
Il	2.82	0.32	0.21	0.34	1.81	0.36	0.9	1.02	0.29	0.27	0.15	0.73	0.36
Ap	0	0.02	0	0	0.05	0	0	0.04	0	0.02	0.02	0.04	0
C_I	42.28	44.95	17.55	32.23	77.8	43.98	29.44	47.02	35.85	8.12	6.33	47.1	42.65
D_I	21.67	18.5	25.95	26.35	11.26	18.81	25.72	20.73	22.44	38.86	28.05	21.81	19.62

Sample	D2.334	D2.356	D2.383	D2.399	D2.421	D2.441	D2.467	D2.484	D2.507	D2.521	D2.537	D2.557	D2.593
Depth*	111	89	62	46	24	4	-22	-39	-62	-76	-92	-113	-148
SiO_2	47.07	51.20	50.74	50.57	50.56	53.06	51.00	51.89	50.95	51.08	51.39	49.55	48.76
TiO_2	1.48	0.34	0.68	0.30	0.21	0.27	0.31	0.28	0.33	0.29	0.29	0.26	0.21
Al_2O_3	14.73	16.81	22.16	16.82	22.84	15.87	15.96	15.93	19.26	15.83	16.95	21.34	27.30
Fe_2O_3	15.79	10.79	8.84	9.61	5.53	9.58	9.30	10.04	6.95	8.73	7.78	5.05	2.38
MnO	0.19	0.20	0.12	0.18	0.10	0.18	0.19	0.20	0.14	0.18	0.16	0.11	0.05
MgO	6.40	6.92	3.75	7.35	3.12	7.03	9.62	10.23	7.19	9.65	8.93	4.72	1.84
CaO	11.82	10.03	12.03	11.86	12.57	10.81	11.76	10.47	13.89	12.74	12.82	14.53	15.14
Na_2O	2.86	3.10	3.33	2.70	3.59	2.21	2.07	2.06	2.28	2.17	2.01	2.52	2.79
K_2O	0.16	0.18	0.23	0.14	0.22	0.18	0.16	0.16	0.15	0.11	0.12	0.11	0.16
P_2O_5	0.02	0.01	0.01	0.01	0.02	0.03	0.02	0.02	0.01	0.02	0.01	0.01	0.02
LOI	-0.42	-0.36	-0.15	-0.3	-0.04	-0.2	-0.18	-0.36	-0.13	-0.17	-0.2	1.43	0.04
Total	100.52	99.58	101.89	99.54	98.76	99.22	100.39	101.28	101.15	100.80	100.46	98.20	98.65
Mg#	44.5	56.0	45.7	60.2	52.8	59.2	67.2	66.9	67.2	68.6	69.5	64.9	60.5
Zn	61	62	42	59	30	56	58	70	41	48	55	33	24
Cu	4	45	225	71	56	159	71	38	2	8	19	20	5
Ni	87	81	95	142	40	159	156	173	106	133	148	70	28
Co	69	48	37	47	22	48	53	55	38	42	48	25	13
Nb	6	5	5	4	6	6	5	6	6	6	6	5	5
Zr	15	14	17	16	17	23	22	20	21	20	18	18	16
Y	6	4	3	6	3	4	6	5	6	4	5	6	3
Sr	365	381	330	262	332	238	223	225	246	240	222	278	326
Rb	12	10	9	9	8	13	11	10	9	8	11	8	7
Cr	32	135	607	67	24	68	90	84	114	123	163	93	41
V	1107	213	486	176	103	118	134	116	139	138	156	118	54
Ba	-	-	-	-	-	-	-	-	-	-	-	-	-
Sr/Al	24.78	22.67	14.89	15.58	14.54	15.00	13.97	14.12	12.77	15.16	13.10	13.03	11.94
Cr/Co	0.46	2.81	16.41	1.43	1.09	1.42	1.70	1.53	3.00	2.93	3.40	3.72	3.15
Co/V	0.06	0.23	0.08	0.27	0.21	0.41	0.40	0.47	0.27	0.30	0.31	0.21	0.24
Cr/V	0.03	0.63	1.25	0.38	0.23	0.58	0.67	0.72	0.82	0.89	1.04	0.79	0.76
Q	0	0	0	0	0	5.03	0	0	0	0	0	0	0
Or	0.95	1.08	1.34	0.84	1.32	1.08	0.95	0.94	0.88	0.65	0.71	0.66	0.96
Ab	16.79	26.58	27.86	23.14	28.35	19	17.58	17.35	19.18	18.35	17.04	21.81	21.19
An	27.08	31.83	44.31	33.77	46.32	33.36	33.9	33.58	41.62	33.09	36.93	47.63	62.43
Di	26.43	15.18	12.12	20.98	13.97	17.07	19.81	14.54	21.65	24.13	21.51	21.05	11.14
DiWo	13.3	7.73	6.1	10.74	7.08	8.73	10.23	7.51	11.19	12.48	11.15	10.85	5.72
DiEn	6.25	4.18	2.88	6.18	3.66	4.95	6.45	4.7	7.1	8.01	7.23	6.71	3.41
DiFs	6.89	3.27	3.14	4.06	3.22	3.4	3.13	2.33	3.36	3.63	3.14	3.5	2.01
Hy	0	18.03	4.66	13	0	21.55	21.92	30.2	10.81	15.71	20.99	4.47	0
HyEn	0	10.12	2.23	7.85	0	12.77	14.77	20.19	7.34	10.81	14.64	2.94	0
HyFs	0	7.91	2.43	5.15	0	8.78	7.15	10.01	3.47	4.9	6.35	1.53	0
Ol	15.14	4.03	6.29	5.34	5.8	0	2.94	0.4	3.51	5.36	0.33	2.57	1.42
OlFo	6.83	2.16	2.86	3.1	2.95	0	1.91	0.26	2.31	3.57	0.22	1.63	0.86
OlFa	8.31	1.87	3.43	2.25	2.86	0	1.02	0.14	1.2	1.79	0.11	0.94	0.56
Mt	3.83	2.5	2.08	2.23	1.29	2.22	2.14	2.28	1.61	2	1.8	1.21	0.58
Il	2.83	0.65	1.28	0.58	0.41	0.52	0.59	0.53	0.62	0.55	0.55	0.51	0.41
Ap	0.04	0.02	0.02	0.02	0.04	0.07	0.04	0.04	0.02	0.04	0.02	0.02	0.04
C_I	48.24	40.4	26.42	42.13	21.47	41.36	47.4	47.95	38.2	47.75	45.19	29.8	13.55
D_I	21.86	27.66	29.2	23.98	31.05	25.11	18.53	18.3	20.06	19	17.75	22.47	23.66

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For all the assistance and training of analytical techniques used in this study, I wish to express my gratitude to Dr Derik De Bruiyn, at the University of the Free State, Dr F. Johan Kruger and Steve Prevec, at the BPI (Geophysics), University of the Witwatersrand, and Sharon Farrel, at the Department of Geology, University of the Witwatersrand.

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