Supplementary Data

Statistical Tests

In order to identify similarities between different compositional populations, to test the accuracy of the two different WDS systems and to evaluate whether the two datasets could be merged, the following two statistical tests were used.

The similarity coefficient (Borchardt et al. 1972) gives the similarity between two populations and is defined as:

$$d_{1,2} = \frac{\sum_{k=1}^{n} R_k}{n}, \tag{1}$$

where $d_{1,2} = d_{2,1}$ is the similarity coefficient between two samples 1 and 2, n is the number of oxides, and R is X_{k1}/X_{k2} if $X_{k2} \geq X_{k1}$ or X_{k2}/X_{k1} if $X_{k1} > X_{k2}$. X_{k1} is the concentration of k in sample 1 and X_{k2} is the concentration of the oxide k in sample 2. This analysis was carried out for six oxides with weight concentrations greater than 1% in order to identify similarities between different populations (Table 1) and for seven oxides for testing the performance of the two different WDS systems (Table 3).

Calculated values closer to 1 indicate a higher similarity. Begét et al. (1992) suggested the following categorisation: Samples with values between 1 and 0.95 are identical; values between 0.95 and 0.90 are not identical but are likely to have the same source; all values below 0.90 indicates that there is no significant relationship between the populations.

The statistical distance function highlights samples without similarities (Perkins et al. 1995, 1998; Pearce et al. 2008) :

$$D^2 = \sum_{k=1}^{n} \frac{(X_{k1} - X_{k2})^2}{\sigma_{k1}^2 + \sigma_{k2}^2}, \tag{2}$$

where n is the number of oxides, X_{k1} and X_{k2} are the average concentrations, σ_{k1} and σ_{k2} are the standard deviations of the average of the k-th oxide in the samples 1 and 2. Calculated D^2 values were compared to D^2 critical of the 99 % confidence level. If the calculated values were greater than the critical value then the null hypothesis, that the samples are identical, can be rejected. However, smaller values can suggest that a correlation exists, but this is not necessarily the case (Pearce et al. 2008). Therefore, if Population A is identical with Population B and Population C is identical with Population B but Population A is not identical with Population B then none of these populations were identified as being identical.

$$PopA = PopB \bigwedge PopC = PopB \bigwedge PopA \neq PopB, \tag{3}$$

Only oxides with an average weight percentage greater than 0.1 % were used. For the analyses of the populations' correlation (Table 2) and of the WDS performance (Table 4), nine and eight oxides were used, respectively.

Accuracy of the Wavelength Dispersive Spectrometers

To estimate the reliability of the two different electron miroprobes used, mean, median and standard deviations were calculated by means of secondary standard analyses (non-normalised values) (Tables 5,6). The mean standard values for both mircroprobes were compared with the recommended values for the BHVO-2G (USGS) standard. After removing outliers all mean values lie within in the recommended $\pm 1\sigma$ values, except for the mean of calcium- and magnesium oxides from the JEOL JXA 800 spectrometer, which lie in the $\pm 2\sigma$ range. Kuehn et al. (2011) used the recommend $\pm 2\sigma$ values to exclude analyses from their data set, therefore the JEOL JXA 800 analyses are consider to be acceptable. Characteristic of the JEOL JXA 800 are generally lower oxide values compared to the recommended values result in the low totals observed, whereas the microprobe at TAU yielded somewhat higher totals than recommended (Tables 5,6,7); these differences might be caused by the differences in the primary calibration. Comparison of the standard deviations from both microprobes for the BHVO-2G secondary standrad suggests that the Cameca SX 100 has a better reliability than the JEOL JXA 800, but close mean and median values suggest a good overall reliability for both probes. As a further test of the performance (Kuehn et al. 2011), the similarity coefficient (SC) (Table 3)(Borchardt et al. 1971, 1972) and statistical distance function (Table 4)(Perkins et al. 1995, 1998; Pearce et al. 2008) were calculated between the BHVO-2G means of both electronprobes and the recommended values for BHVO-2G. The high SCs between the recommended value and the SCs derived from the microprobe analyses imply good overall performance. Combined with the results from the statistical distance function, this gives us confidence that the null hypothesis (i.e. that the different samples are identical) is true (as the calculated D^2 are smaller than the D^2 critical of 20.09 (Table 4)).

Similarity coefficients for populations found in different sample depths

	2317 A	2317 B	2317 C	2322 A	2322 B	2322 C	2322 D	2327 A	2327 B	2327 C	2327 D	2327 F	2332 A	2332 B	2332 C	2332 D	2332 E	2332 F	2332 G
2317 A	1.00	0.98	0.94	0.99	0.90	0.87	0.95	0.91	0.80	0.85	0.88	0.92	0.99	0.95	0.90	0.88	0.85	0.80	0.83
2317 B		1.00	0.93	0.98	0.89	0.85	0.93	0.90	0.79	0.84	0.86	0.93	0.97	0.93	0.88	0.86	0.84	0.79	0.82
2317 C			1.00	0.94	0.95	0.91	0.98	0.96	0.84	0.89	0.92	0.87	0.94	0.96	0.94	0.92	0.90	0.84	0.87
2322 A				1.00	0.90	0.87	0.95	0.91	0.80	0.85	0.88	0.91	0.99	0.95	0.90	0.88	0.85	0.80	0.83
2322 B					1.00	0.95	0.95	0.98	0.88	0.94	0.96	0.83	0.91	0.95	0.99	0.97	0.94	0.88	0.92
2322 C						1.00	0.91	0.95	0.92	0.98	0.99	0.80	0.87	0.91	0.96	0.98	0.98	0.92	0.96
2322 D							1.00	0.96	0.84	0.90	0.92	0.87	0.95	0.99	0.95	0.93	0.90	0.84	0.87
2327 A								1.00	0.87	0.93	0.96	0.84	0.92	0.96	0.98	0.96	0.93	0.87	0.91
2327 B									1.00	0.94	0.91	0.74	0.80	0.84	0.88	0.91	0.93	0.99	0.96
2327 C										1.00	0.97	0.78	0.85	0.89	0.94	0.96	0.98	0.94	0.97
2327 D											1.00	0.81	0.88	0.92	0.97	0.99	0.97	0.91	0.95
2327 F												1.00	0.91	0.87	0.83	0.81	0.79	0.74	0.77
2332 A													1.00	0.95	0.91	0.88	0.86	0.80	0.83
2332 B														1.00	0.95	0.92	0.90	0.84	0.87
2332 C															1.00	0.97	0.94	0.89	0.92
2332 D																1.00	0.97	0.91	0.95
2332 E																	1.00	0.94	0.97
2332 F																		1.00	0.96
2332 G																			1.00

Table 1: Similarity coefficient (SC) for populations found in different sample depths. Six oxide were used to calculated the SC and only populations consist of at least two shards were included. Even though, the SC between different populations is very high, i.e larger than 0.95, they are not considered to be similar as it was found later on that the statistical distance function test rejects that they are not identical (Table 2). Only oxides with a weight % greater than 1 were used (SiO_2, Al_2O_3, FeO, MgO, CaO, Na_2O).

Statistical distance function:
Calculated D^2 values for populations identified in each sample depth

	2317 A	2317 B	2317 C	2322 A	2322 B	2322 C	2322 D	2327 A	2327 B	2327 C	2327 D	2327 F	2332 A	2332 B	2332 C	2332 D	2332 E	2332 F	2332 G
2317 A	0.00	78.24	100.39	3.79	118.49	160.20	40.63	99.25	726.09	240.30	131.49	57.56	3.08	32.79	312.39	224.59	532.11	553.73	522.57
2317 B		0.00	90.92	82.45	218.69	270.41	128.46	224.11	921.75	390.25	252.48	23.83	95.53	140.09	553.07	367.23	817.82	680.21	651.99
2317 C			0.00	92.34	82.37	155.30	43.07	96.45	575.72	182.44	156.66	59.99	116.25	104.87	222.72	166.80	315.21	482.93	410.92
2322 A				0.00	94.59	130.15	34.01	82.37	625.21	210.40	116.16	57.84	1.02	21.89	209.37	176.18	376.17	468.59	405.38
2322 B					0.00	19.72	16.92	1.20	189.48	36.77	14.38	113.93	132.96	16.90	2.46	26.49	61.04	131.53	91.09
2322 C						0.00	43.28	16.78	35.98	2.56	1.37	146.12	148.56	72.29	24.30	3.71	4.02	31.09	8.10
2322 D							0.00	15.05	274.14	75.77	36.19	83.25	44.16	2.00	31.45	68.31	124.33	193.18	151.15
2327 A								0.00	136.10	25.82	12.34	116.23	111.86	18.87	1.64	22.62	49.85	122.60	72.91
2327 B									0.00	28.50	52.54	272.51	762.27	373.65	313.47	86.23	64.13	1.52	26.35
2327 C										0.00	6.22	173.81	219.88	90.25	45.76	15.64	6.00	24.66	4.29
2327 D											0.00	145.39	132.12	53.92	15.78	1.70	6.76	46.96	16.80
2327 F												0.00	60.32	76.34	137.28	157.64	196.63	260.11	221.79
2332 A													0.00	29.65	339.41	231.96	442.73	602.10	565.95
2332 B														0.00	99.79	61.97	190.13	365.40	291.04
2332 C															0.00	31.07	130.23	229.84	152.73
2332 D																0.00	15.35	63.04	34.89
2332 E																	0.00	47.43	19.96
2332 F																		0.00	22.74
2332 G																			0.00

Table 2: Table shows the result of the statistical distance function for each sample depth. The D^2 values were calculated from nine oxides (SiO_2, TiO_2, Al_2O_3, FeO, MnO, MgO, CaO, Na_2O, K_2O), which gives a D^2 critical from 21.67 (99 % confidence level). Only populations comprising of more than two shards were included in this test. Intra-depth comparison show that none of the populations found in these same depth are identical.

	JEOL JXA 800	USGS	Cameca SX 100
JEOL JXA 800	1.00	0.98	0.96
USGS		1.00	0.99
Cameca SX100			1.00

Table 3: Similarity coefficient between electron microprobe Cameca SX 100, JEOL JXA 800 and recommended values for BHVO-2G on the basis of seven oxides with a weight % greater than 1 (SiO_2, TiO_2, Al_2O_3, FeO, MgO, CaO, Na_2O).

	JEOL JXA 800	USGS	Cameca SX 100
JEOL JXA 800	0.00	5.14	16.72
USGS		0.00	2.52
Cameca SX 100			0.00

Table 4: Calculated D^2 of statistical distance function between electron microprobe Cameca SX 100, JEOL JXA 800 and recommended values from the USGS for BHVO-2G on the basis of oxide mean and standard deviation. Eight oxides (SiO_2, TiO_2, Al_2O_3, FeO, MgO, CaO, Na_2O, K_2O) with a weight % > 0.1 were used, which gives a D^2 critical of 20.09 (99 % confidence level).

n	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	SO_2	F	Cl	Total
1	50.52	2.78	13.66	10.95	0.17	7.29	11.53	2.35	0.54	0.25	0.01	0.04	0.00	100.09
2	49.82	2.80	13.70	10.76	0.18	7.16	11.39	2.26	0.49	0.27	0.00	0.03	0.01	98.86
3	50.18	2.80	13.61	10.63	0.18	7.13	11.52	2.24	0.47	0.26	0.01	0.03	0.01	99.08
4	50.42	2.79	13.51	10.97	0.18	7.21	11.23	2.23	0.46	0.25	0.01	0.04	0.00	99.30
5	51.15	2.76	13.40	10.81	0.18	7.30	11.49	2.34	0.54	0.25	0.01	0.05	0.01	100.29
6	50.36	2.77	13.63	10.99	0.18	7.44	11.41	2.40	0.51	0.26	0.01	0.06	0.01	100.03
7	50.46	2.79	13.83	10.79	0.18	7.27	11.45	2.12	0.50	0.27	0.00	0.03	0.01	99.69
8	49.94	2.79	13.80	11.18	0.17	7.24	11.65	2.25	0.48	0.26	0.01	0.04	0.01	99.79
9	50.32	2.80	13.73	11.06	0.19	7.39	11.25	2.30	0.56	0.25	0.00	0.04	0.01	99.91
10	50.02	2.78	13.84	11.00	0.18	7.20	11.57	2.19	0.53	0.26	0.01	0.05	0.01	99.62
11	50.74	2.77	14.21	10.97	0.17	7.39	11.36	2.28	0.49	0.26	0.01	0.04	0.01	100.69
12	49.94	2.79	13.95	11.08	0.17	7.28	11.46	2.33	0.45	0.26	0.01	0.03	0.00	99.74
13	49.89	2.81	14.00	11.00	0.18	7.39	11.48	2.39	0.49	0.25	0.00	0.03	0.01	99.93
14	49.84	2.79	13.54	10.95	0.17	7.36	11.44	2.25	0.46	0.27	0.00	0.02	0.01	99.10
Mean	**50.26**	**2.79**	**13.74**	**10.94**	**0.18**	**7.29**	**11.44**	**2.28**	**0.50**	**0.26**	**0.01**	**0.04**	**0.01**	**99.72**
Median	**50.25**	**2.79**	**13.72**	**10.97**	**0.18**	**7.28**	**11.46**	**2.27**	**0.49**	**0.29**	**0.01**	**0.04**	**0.01**	**99.76**
St.Dev	**0.39**	**0.01**	**0.22**	**0.14**	**0.01**	**0.09**	**0.11**	**0.08**	**0.03**	**0.01**	**0.00**	**0.01**	**0.00**	

Table 5: Individual analyses of the secondary standard BHVO-2G made throughout the analytical period in November 2010 at TAU.

n	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	Total
1	48.70	2.65	13.46	10.48	0.20	6.91	10.83	2.29	0.54	96.07
2	49.23	2.92	13.04	10.82	0.12	7.05	10.87	2.28	0.51	96.83
3	49.44	2.76	13.47	10.85	0.24	6.85	10.98	2.18	0.54	97.30
4	49.49	2.89	13.59	10.70	0.31	6.93	11.06	2.16	0.47	97.61
5	49.66	2.85	13.48	10.27	0.26	6.99	10.99	2.30	0.51	97.33
6	49.65	2.64	13.63	10.58	0.22	7.01	10.73	1.96	0.47	96.91
7	49.64	2.86	13.41	10.76	0.23	7.09	10.77	2.45	0.47	97.70
8	49.84	2.68	13.44	10.50	0.23	6.72	11.05	2.38	0.58	97.41
9	49.28	2.76	13.48	10.48	0.29	7.12	11.08	2.25	0.53	97.26
10	49.86	2.57	13.56	10.98	0.17	7.01	10.90	2.22	0.47	97.73
11	49.38	2.64	13.63	10.86	0.24	6.98	10.91	2.22	0.49	97.35
12	48.78	2.84	13.39	10.69	0.12	7.06	10.86	2.36	0.52	96.62
13	48.92	2.83	13.16	11.13	0.23	7.09	10.90	1.72	0.53	96.51
14	49.72	2.84	13.49	10.86	0.24	6.82	11.11	2.22	0.52	97.81
15	49.62	2.82	13.59	10.65	0.04	6.95	11.03	2.45	0.55	97.69
16	49.49	2.73	13.29	10.60	0.08	7.01	10.79	2.08	0.53	96.60
17	50.10	2.89	13.57	10.80	0.09	6.93	11.09	1.79	0.51	97.77
18	49.61	2.74	13.64	10.37	0.09	6.72	11.15	2.20	0.51	97.03
19	49.75	2.74	13.59	10.54	0.11	6.81	10.90	2.13	0.50	97.08
20	48.72	2.60	13.44	10.78	0.08	6.96	11.24	2.06	0.52	96.40
21	49.81	2.69	13.59	10.96	0.16	6.90	11.11	2.16	0.52	97.89
22	49.69	2.93	13.29	10.29	0.19	6.94	10.83	1.83	0.48	96.48
23	49.29	2.61	13.10	10.63	0.10	6.99	10.90	2.20	0.54	96.35
24	49.44	2.61	13.30	10.95	0.18	6.93	11.18	1.30	0.56	96.45
25	49.79	2.68	13.59	10.61	0.09	7.00	11.13	2.20	0.56	97.64
26	49.78	2.69	13.47	10.87	0.12	7.05	11.20	2.32	0.60	98.10
27	49.18	2.79	13.59	10.97	0.27	7.11	11.04	2.61	0.61	98.17
28	49.06	2.82	13.35	10.92	0.16	7.04	10.96	1.98	0.41	96.70
29	49.56	2.59	13.69	10.65	0.26	6.95	11.21	2.25	0.53	97.69
30	49.36	2.84	13.53	10.91	0.11	6.92	10.92	2.00	0.58	97.16
31	48.89	2.78	13.24	10.96	0.13	6.86	10.97	2.17	0.52	96.52
32	49.11	2.70	13.25	10.53	0.14	6.91	11.14	2.28	0.53	96.58
33	48.41	2.51	13.28	10.55	0.12	6.82	10.72	2.17	0.45	95.03
34	49.14	2.61	13.44	10.07	0.27	7.16	10.89	2.09	0.52	96.19
Mean	**49.39**	**2.74**	**13.44**	**10.69**	**0.17**	**6.96**	**10.98**	**2.15**	**0.52**	**97.06**
Median	**49.47**	**2.74**	**13.47**	**10.70**	**0.17**	**6.95**	**10.98**	**2.20**	**0.52**	**97.12**
St.Dev.	**0.40**	**0.11**	**0.16**	**0.24**	**0.07**	**0.11**	**0.14**	**0.24**	**0.04**	

Table 6: Individual analyses of the secondary standard BHVO-2G made throughout the analytical period in July 2011 at FEEA.

Reference values for BHVO2G (USGS), ± 1 σ											
	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	Total
Recommendation	49.8	2.75	13.5	12.00	-	7.23	11.4	2.18	0.51	0.27	98.54
St. Dev, σ	0.42	0.07	0.22	0.6	-	0.15	0.24	0.09	0.01	0.02	
Reference values for BHVO2G Jochum et al. (2005), ± 1 σ											
	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	Total
Recommendation	49.3	2.78	13.6	11.3	0.17	7.13	11.4	2.40	0.51	0.29	99.0
St. Dev, σ	0.1	0.02	0.1	0.1	0.03	0.02	0.1	0.05	0.02	0.02	0.4

Table 7: Top panel: Recommended values and ± 1 σ for the BHVO-2G (USGS) standard. Bottom panel: Recommended values and ± 1 σ for the BHVO-2G (Jochum et al. 2005).

Individual analyses of the secondary standard Lipari														
n	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	SO_2	F	Cl	Total
1	74.95	0.08	13.05	1.42	0.08	0.02	0.73	4.11	4.93	0.01	0.00	0.17	0.37	99.92
2	73.26	0.08	13.29	1.46	0.08	0.03	0.77	4.05	5.08	0.01	0.00	0.18	0.38	98.65
3	74.30	0.07	13.11	1.56	0.08	0.03	0.77	4.07	5.12	0.01	0.01	0.19	0.38	99.68
4	74.13	0.08	13.19	1.53	0.07	0.05	0.72	4.06	5.15	0.01	0.00	0.16	0.36	99.51
5	73.85	0.07	12.91	1.42	0.07	0.06	0.75	4.15	5.02	0.01	0.01	0.18	0.38	98.89
6	73.92	0.07	13.00	1.59	0.06	0.06	0.70	4.12	5.00	0.01	0.00	0.15	0.38	99.06
7	73.43	0.08	12.90	1.50	0.07	0.03	0.67	4.14	5.18	0.01	0.01	0.16	0.38	98.54
8	73.54	0.08	13.11	1.37	0.07	0.06	0.70	4.23	5.24	0.00	0.00	0.19	0.37	98.97
9	73.67	0.08	12.98	1.58	0.07	0.06	0.74	4.13	5.13	0.01	0.00	0.19	0.37	99.02
Mean	**73.89**	**0.08**	**13.06**	**1.49**	**0.07**	**0.04**	**0.73**	**4.12**	**5.09**	**0.01**	**0.00**	**0.17**	**0.37**	**99.14**
S.Dev	**0.52**	**0.00**	**0.13**	**0.08**	**0.01**	**0.02**	**0.04**	**0.06**	**0.10**	**0.00**	**0.00**	**0.01**	**0.01**	**0.47**
Recommended values for secondary standard Lipari														
	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	SO_2	F	Cl	Total
a	74.03	0.08	12.72	1.75	0.08	0.00	0.72	4.06	5.18	0	n.d.	n.d.	n.d.	
b	73.72	n.d.	13.04	1.76	n.d.	0.03	0.76	4.06	5.06	n.d.	n.d.	n.d.	n.d.	

Table 8: Top panel: Individual analyses of the secondary standard Lipari made throughout the analytical period in November 2010 at TAU. Bottom panel: Recommended values for secondary standard Lipari a) Sparks, R.S.J. (pers.comm. 1990) and b) Hunt and Hill (1996).

Table 9: Mean major oxide concentrations of shards from the Site U 1304 23.17 mcd sample (Normalised to 100 weight %). n: number of analysed points which are used to calculated the mean concentration of a certain shard. Probe: Tephrochronology Analytical Unit (TAU) at the Grant Institute, University of Edinburgh (Cameca SX 100) and Facility of Earth & Environmental Analysis (FEEA) at the University of St Andrews (JEOL JXA 800). Source: Krafla volcanic system (KVS), Grimsvòtn volcanic system (GVS), Trans: shards belong to the Transitional-alkalic series; no further investigation regarding volcanic source were made. All oxides are presented as weight %.

Population	**Code**	**SiO_2**	**TiO_2**	**Al_2O_3**	**FeO^T**	**MnO**	**MgO**	**CaO**	**Na_2O**	**K_2O**	**P_2O_5**	**SO_2**	**F**	**Cl**	**Total**	**Probe**	**Source**	**n**
2317A																		
	23171	51.76	2.03	13.23	14.27	0.27	5.57	9.80	2.80	0.27	n.a	n.a	n.a	n.a	100	FEEA	KVS	2
	23173	51.20	1.98	13.36	14.31	0.27	5.80	10.02	2.73	0.33	n.a	n.a	n.a	n.a	100	FEEA	KVS	1
	231718	51.35	1.93	13.39	14.63	0.35	5.79	9.87	2.38	0.32	n.a	n.a	n.a	n.a	100	FEEA	KVS	1
	23.17m-1	50.43	2.10	13.08	14.42	0.25	5.79	10.25	2.77	0.33	0.23	0.24	0.04	0.06	100	TAU	KVS	1
	23.17m-3	50.90	2.08	13.35	14.14	0.24	5.58	10.13	2.73	0.32	0.22	0.22	0.04	0.06	100	TAU	KVS	1
	23.17m-4	50.76	2.06	13.24	14.22	0.24	5.88	10.09	2.67	0.30	0.23	0.22	0.04	0.06	100	TAU	KVS	1
	23.17m-5	50.97	2.08	13.36	14.42	0.25	5.60	10.02	2.51	0.29	0.22	0.19	0.05	0.05	100	TAU	KVS	1
2317B																		
	23172	50.61	3.11	13.26	14.37	0.25	5.45	9.69	2.87	0.39	n.a.	n.a.	n.a.	n.a.	100	FEEA	GVS	1
	23177	50.64	3.26	13.16	14.04	0.18	5.63	9.89	2.74	0.46	n.a.	n.a.	n.a.	n.a.	100	FEEA	GVS	4
	231712	51.11	3.38	13.11	14.15	0.21	5.28	9.73	2.63	0.40	n.a.	n.a.	n.a.	n.a.	100	FEEA	GVS	1
2317C																		
	23175	50.47	2.81	13.92	12.66	0.20	6.16	10.67	2.74	0.38	n.a	n.a	n.a	n.a	100	FEEA	GVS	1
	23176	50.71	2.77	14.06	12.23	0.21	6.31	10.74	2.61	0.36	n.a	n.a	n.a	n.a	100	FEEA	GVS	2
	23178	50.58	2.58	13.94	12.36	0.24	6.29	10.75	2.90	0.35	n.a	n.a	n.a	n.a	100	FEEA	GVS	1
	231713	50.39	2.71	13.89	12.61	0.34	6.24	10.75	2.61	0.46	n.a	n.a	n.a	n.a	100	FEEA	GVS	1
	231720	50.32	2.85	13.69	13.34	0.22	6.11	10.29	2.81	0.37	n.a	n.a	n.a	n.a	100	FEEA	GVS	4
	231721	50.78	2.72	13.84	12.44	0.19	6.24	10.79	2.62	0.38	n.a	n.a	n.a	n.a	100	FEEA	GVS	3
	23.17m-2	49.71	2.70	13.95	12.78	0.23	6.35	10.81	2.65	0.35	0.29	0.14	0.03	0.01	100	TAU	GVS	1
Outlier																		
	231711	46.84	5.02	12.61	14.89	0.32	6.92	9.64	3.10	0.66	n.a	n.a	n.a	n.a	100	FEEA	Trans	3
2322A																		
	23226	51.95	2.10	13.49	13.83	0.21	5.64	9.86	2.64	0.30	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	5
	23227	51.84	2.11	13.31	14.76	0.20	5.41	9.49	2.57	0.30	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	1
	23229	51.66	1.99	13.48	13.82	0.33	5.71	9.85	2.88	0.28	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	5
	232210	51.99	2.00	13.31	14.11	0.51	5.61	9.78	2.38	0.32	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	1
	232219	51.80	2.07	13.52	13.76	0.24	5.55	9.89	2.90	0.28	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	5
	232221	51.90	2.14	13.46	13.87	0.19	5.79	9.79	2.57	0.29	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	1
	232222	51.93	2.02	13.49	14.07	0.20	5.60	9.97	2.51	0.22	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	1
	23.22m-2	50.66	2.02	13.32	14.18	0.24	5.89	10.30	2.65	0.27	0.22	0.17	0.03	0.06	100	TAU	KVS	1
2322B																		
	23224	51.51	1.50	14.22	12.35	0.25	6.82	11.16	1.97	0.22	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	23225	51.19	1.57	13.94	12.70	0.23	6.64	10.86	2.61	0.27	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232212	51.37	1.42	13.98	13.01	0.23	6.73	11.11	1.96	0.19	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232218	50.54	1.76	14.08	12.71	0.25	6.90	11.32	2.24	0.21	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232225	51.03	1.82	13.89	12.85	0.15	6.70	11.08	2.26	0.21	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1

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Table 9 – *Continued from previous page*

Population	Code	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	SO_2	F	Cl	Total	Probe	Source	n
	232226	51.50	1.57	13.95	12.50	0.23	6.76	11.00	2.29	0.21	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	5
	232227	51.93	1.70	14.20	11.89	0.24	6.74	10.73	2.35	0.23	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
2322C																		
	232214	50.97	1.52	14.02	11.79	0.10	7.16	12.06	2.23	0.15	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232223	51.00	1.18	13.95	12.08	0.18	7.25	11.54	2.65	0.17	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232228	51.56	1.42	13.84	11.65	0.20	7.08	11.63	2.49	0.14	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232229	51.01	1.33	14.43	11.19	0.25	7.50	11.97	2.18	0.14	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	5
	23.22m-1	50.43	1.31	14.50	11.39	0.21	7.50	11.98	2.12	0.19	0.16	0.16	0.02	0.03	100	TAU	VBVS	1
	23.22m-3	50.12	1.25	14.46	10.77	0.20	7.90	12.71	2.08	0.16	0.12	0.18	0.02	0.02	100	TAU	VBVS	1
	23.22m-7	50.98	1.31	14.32	11.43	0.21	7.38	11.70	2.15	0.19	0.14	0.16	0.02	0.02	100	TAU	VBVS	1
2322D																		
	23222	51.52	1.84	13.79	13.11	0.27	6.32	10.35	2.53	0.28	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	5
	23223	51.52	1.90	13.56	12.69	0.34	6.36	10.77	2.66	0.22	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232211	51.71	1.97	13.79	12.67	0.17	6.25	10.59	2.58	0.27	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232215	51.00	1.78	13.90	12.93	0.24	6.33	10.72	2.86	0.24	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232216	51.42	1.86	13.79	13.47	0.24	6.42	10.46	2.14	0.20	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232217	51.52	1.57	13.97	12.84	0.23	6.27	10.72	2.67	0.22	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	232224	51.96	1.56	13.94	12.37	0.05	6.48	10.86	2.51	0.26	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	23.22m-4	50.03	1.82	13.73	13.75	0.24	6.42	10.84	2.47	0.22	0.19	0.20	0.04	0.06	100	TAU	VBVS	1
	23.22m-5	50.38	1.90	13.64	13.94	0.24	6.14	10.54	2.45	0.27	0.20	0.22	0.04	0.04	100	TAU	VBVS	1
	23.22m-6	50.04	1.86	13.72	13.83	0.24	6.44	10.66	2.46	0.29	0.21	0.20	0.01	0.04	100	TAU	VBVS	1
Outlier																		
	23228	48.01	5.14	12.74	15.11	0.20	5.17	10.18	2.90	0.56	n.a.	n.a.	n.a.	n.a.	100	FEEA	Trans	1
	232213	47.78	4.98	13.03	14.60	0.32	5.23	10.08	3.30	0.68	n.a.	n.a.	n.a.	n.a.	100	FEEA	Trans	1
	23.22m-8	49.45	2.96	13.63	13.31	0.23	6.15	10.77	2.60	0.38	0.30	0.16	0.05	0.02	100	TAU	-	1
	232220	50.68	3.26	13.12	14.90	0.16	5.29	9.45	2.69	0.45	n.a.	n.a.	n.a.	n.a.	100	FEEA	-	1
2327A																		
	23271	51.36	1.63	14.23	12.14	0.19	6.88	11.02	2.32	0.23	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	23273	51.34	1.49	14.16	12.56	0.07	6.73	11.21	2.21	0.23	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	23274	51.28	1.56	14.00	12.24	0.24	6.76	11.10	2.58	0.24	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	232711	51.49	1.53	14.02	11.96	0.23	6.78	11.05	2.71	0.22	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	5
	232712	51.41	1.48	14.25	11.83	0.21	6.94	11.12	2.53	0.23	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	232713	51.41	1.47	14.11	11.94	0.30	6.92	11.05	2.59	0.22	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	232716	51.46	1.54	14.02	12.04	0.16	6.94	11.09	2.55	0.19	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	232722	51.22	1.76	14.12	12.48	0.19	6.60	10.83	2.55	0.26	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	232728	51.53	1.42	14.19	11.72	0.23	6.98	11.40	2.32	0.21	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	232729	51.57	1.38	14.13	11.92	0.27	6.86	11.23	2.43	0.21	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	23.27m-1	50.67	1.63	13.63	12.77	0.22	6.58	11.35	2.46	0.26	0.18	0.16	0.04	0.04	100	TAU	VBVS	1
	23.27m-3	50.64	1.77	13.46	13.06	0.23	6.81	11.11	2.26	0.25	0.20	0.12	0.03	0.06	100	TAU	VBVS	1
	23.27m-4	50.15	1.66	13.78	13.39	0.22	6.53	11.16	2.47	0.24	0.19	0.14	0.04	0.04	100	TAU	VBVS	1
	23.27m-7	51.20	1.57	13.27	12.90	0.23	6.87	11.12	2.25	0.19	0.18	0.16	0.03	0.04	100	TAU	VBVS	1
2327B																		
	232717	51.24	0.85	14.68	9.54	0.26	8.27	13.40	1.70	0.05	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	2
	232719	50.82	0.89	14.85	10.05	0.16	8.31	12.84	1.98	0.10	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	2
	231721	50.94	0.96	14.70	10.16	0.25	8.03	12.74	2.07	0.13	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	2
	232723	51.02	1.00	14.72	10.06	0.19	8.09	12.76	2.04	0.12	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	3
2327C																		

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Table 9 – *Continued from previous page*

Population	Code	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	SO_2	F	Cl	Total	Probe	Source	n
	23272	50.96	1.22	14.39	10.76	0.17	7.92	12.25	2.14	0.19	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	232710	50.98	1.49	14.53	11.23	0.11	7.33	11.65	2.44	0.23	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	232718	51.20	1.22	14.37	11.33	0.31	7.43	11.80	2.18	0.15	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	232720	51.34	1.21	14.63	10.34	0.20	7.62	12.40	2.06	0.20	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	232724	51.22	1.35	14.56	11.13	0.17	7.49	11.76	2.18	0.14	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
2327D																		
	23276	51.05	1.40	14.04	12.39	0.19	7.24	11.41	2.15	0.14	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	232714	50.96	1.43	14.25	11.98	0.10	7.17	11.65	2.27	0.19	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	232725	51.42	1.31	13.41	11.32	0.22	7.81	12.02	2.38	0.11	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	23.27m-6	50.07	1.54	13.98	11.84	0.22	7.45	12.07	2.25	0.19	0.16	0.17	0.02	0.03	100	TAU	VBVS	1
2327F																		
	23275	48.31	4.98	13.17	14.52	0.30	5.06	9.80	3.19	0.67	n.a.	n.a.	n.a.	n.a.	100	FEEA	Trans	5
	23278	50.30	4.14	13.71	13.80	0.17	4.31	8.98	3.63	0.96	n.a.	n.a.	n.a.	n.a.	100	FEEA	Trans	2
	23279	48.77	4.78	12.87	15.22	0.20	4.89	9.40	3.22	0.65	n.a.	n.a.	n.a.	n.a.	100	FEEA	Trans	1
	23.27m-5	46.99	4.67	13.06	15.05	0.26	4.86	9.57	3.38	0.77	0.88	0.33	0.14	0.04	100	TAU	Trans	1
Outlier																		
	232715	51.61	2.17	13.27	14.13	0.27	5.63	9.79	2.86	0.28	n.a.	n.a.	n.a.	n.a.	100	FEEA	-	2
	23.27m-2	51.15	2.05	13.19	14.17	0.25	5.75	10.11	2.50	0.28	0.22	0.23	0.05	0.06	100	TAU	-	1
	23277	50.44	3.14	13.01	14.83	0.22	5.37	9.62	2.94	0.42	n.a.	n.a.	n.a.	n.a.	100	FEEA	-	2
2332A																		
	23321	51.56	1.97	13.43	14.73	0.34	5.62	9.69	2.36	0.31	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	1
	233211	51.86	2.02	13.52	13.77	0.19	5.68	9.91	2.72	0.32	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	5
	233220	51.41	2.04	13.45	14.22	0.34	5.74	9.94	2.54	0.32	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	3
	233230	51.86	2.01	13.53	14.12	0.25	5.65	9.84	2.40	0.33	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	2
	233239	51.85	2.03	13.30	13.75	0.25	5.77	10.00	2.76	0.29	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	1
	233240	51.95	2.05	13.50	13.87	0.32	5.86	9.65	2.49	0.30	n.a.	n.a.	n.a.	n.a.	100	FEEA	KVS	1
	23.32m-6	50.65	2.06	13.43	14.23	0.24	5.82	10.05	2.76	0.27	0.21	0.20	0.02	0.06	100	TAU	KVS	1
	23.32m-14	50.71	2.04	13.65	14.25	0.24	5.66	9.93	2.74	0.27	0.23	0.18	0.03	0.06	100	TAU	KVS	1
2332B																		
	23324	51.36	1.87	13.83	13.28	0.21	6.36	10.37	2.45	0.28	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	5
	23325	51.14	1.89	13.82	13.22	0.13	6.86	9.90	2.75	0.29	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	23329	51.78	1.85	13.82	13.39	0.16	6.25	10.19	2.31	0.25	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	23.32m-5	50.37	1.91	13.48	13.70	0.23	6.27	10.81	2.44	0.27	0.21	0.25	0.02	0.04	100	TAU	VBVS	1
2332C																		
	23328	51.45	1.60	14.04	12.12	0.23	6.84	11.20	2.26	0.25	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	233226	51.50	1.59	14.11	12.16	0.28	6.77	11.05	2.29	0.26	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	233229	51.22	1.55	14.04	12.32	0.19	6.95	11.13	2.37	0.22	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
2332D																		
	23322	51.18	1.24	13.95	12.39	0.22	7.12	11.68	2.11	0.11	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	233214	51.24	1.12	14.17	11.95	0.34	7.40	11.75	1.96	0.08	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	5
	233219	51.31	1.35	14.17	11.49	0.20	7.25	11.88	2.18	0.16	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	233223	51.25	1.23	14.01	11.97	0.22	7.12	11.52	2.56	0.11	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	233224	50.64	1.48	14.09	12.38	0.27	7.25	11.54	2.17	0.18	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	233228	50.87	1.33	13.96	12.29	0.20	7.37	11.64	2.21	0.13	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	2
	23.32m-2	50.49	1.19	13.67	12.29	0.23	7.54	12.00	2.14	0.07	0.10	0.21	0.04	0.03	100	TAU	VBVS	1
	23.32m-4	50.34	1.35	13.95	12.32	0.22	7.36	11.86	2.15	0.11	0.14	0.15	0.02	0.03	100	TAU	VBVS	1

Continued on next page

Table 9 – *Continued from previous page*

Population	Code	SiO_2	TiO_2	Al_2O_3	FeO^T	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	SO_2	F	Cl	Total	Probe	Source	n
	23.32m-11	50.09	1.41	13.72	12.36	0.21	7.56	11.84	2.30	0.14	0.13	0.17	0.03	0.03	100	TAU	VBVS	1
	23.32m-17	49.10	1.53	13.97	12.36	0.21	7.43	11.85	2.58	0.20	0.16	0.20	0.04	0.38	100	TAU	VBVS	1
2332E																		
	23326	50.84	1.29	14.41	11.41	0.27	7.81	11.73	2.14	0.10	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	23327	50.92	1.29	14.46	11.55	0.17	7.49	11.81	2.19	0.13	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	233213	51.02	1.36	14.50	11.40	0.24	7.42	11.73	2.17	0.17	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	233216	50.69	1.25	14.46	11.72	0.05	7.87	11.66	2.18	0.13	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	233217	50.68	1.24	14.47	11.42	0.14	7.90	11.73	2.29	0.13	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	233227	50.46	1.12	14.50	11.67	0.29	7.89	11.92	2.03	0.13	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	23.32m-3	50.08	1.28	14.37	11.51	0.23	7.89	12.04	2.07	0.11	0.13	0.24	0.03	0.02	100	TAU	VBVS	1
2332F																		
	233221	51.04	0.92	14.59	10.24	0.33	8.14	12.78	1.85	0.12	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	2
	233225	51.04	0.80	15.01	9.68	0.13	8.64	13.07	1.55	0.08	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	2
	233232	51.04	1.05	14.65	10.21	0.22	7.96	12.88	1.88	0.11	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	3
	233233	51.44	0.99	14.53	10.66	0.15	7.81	12.31	2.00	0.12	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	3
	233234	51.02	1.01	14.73	9.86	0.22	7.95	13.00	2.07	0.13	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	1
	233236	50.60	0.92	14.60	10.12	0.39	8.22	12.77	2.28	0.10	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	1
	233237	50.82	1.00	14.69	9.90	0.23	8.26	12.92	2.08	0.11	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	5
	233238	50.68	1.07	15.16	9.43	0.24	8.18	12.95	2.13	0.17	n.a.	n.a.	n.a.	n.a.	100	FEEA	WVZ	1
	23.32m-1	50.05	0.99	14.58	10.16	0.19	8.32	13.42	1.89	0.12	0.08	0.16	0.02	0.02	100	TAU	WVZ	1
	23.32m-7	49.79	0.98	14.74	10.57	0.20	8.33	13.08	1.98	0.07	0.08	0.16	0.01	0.02	100	TAU	WVZ	1
	23.32m-12	50.24	0.96	14.34	10.40	0.19	8.22	13.31	1.98	0.11	0.09	0.14	0.01	0.02	100	TAU	WVZ	1
	23.32m-15	50.16	0.95	14.19	10.21	0.19	8.67	13.22	2.04	0.09	0.09	0.18	-0.01	0.02	100	TAU	WVZ	1
	23.32m-16	50.08	0.95	14.73	10.27	0.19	8.39	13.20	1.84	0.10	0.08	0.17	-0.01	0.02	100	TAU	WVZ	1
	23.32m-18	49.83	0.97	14.92	10.27	0.17	8.54	13.10	1.86	0.09	0.09	0.14	0.00	0.02	100	TAU	WVZ	1
	23.32m-19	50.39	0.99	14.58	10.18	0.19	8.21	13.14	1.91	0.13	0.10	0.15	0.01	0.02	100	TAU	WVZ	1
	23.32m-20	50.41	0.95	14.27	10.09	0.19	8.37	13.31	2.06	0.08	0.09	0.16	0.00	0.02	100	TAU	WVZ	1
2332G																		
	23323	51.22	1.29	14.56	10.31	0.25	7.65	12.42	2.16	0.16	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	233210	50.95	1.23	14.82	10.67	0.16	7.99	12.18	1.85	0.15	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	1
	233218	51.08	1.29	14.54	10.51	0.21	7.64	12.25	2.31	0.18	n.a.	n.a.	n.a.	n.a.	100	FEEA	VBVS	3
	23.32m-8	50.27	1.25	14.26	10.94	0.20	7.90	12.55	2.14	0.17	0.14	0.17	0.00	0.02	100	TAU	VBVS	1
	23.32m-10	49.90	1.19	14.51	10.83	0.20	8.02	12.70	2.15	0.21	0.12	0.14	0.01	0.02	100	TAU	VBVS	1
	23.32m-13	50.67	1.19	14.27	10.58	0.20	7.89	12.70	2.07	0.15	0.13	0.12	0.01	0.02	100	TAU	VBVS	1
Outlier																		
	233222	50.03	2.57	13.80	12.84	0.24	6.58	10.97	2.65	0.33	n.a.	n.a.	n.a.	n.a.	100	FEEA	-	2
	233231	50.03	0.53	15.45	8.72	0.26	9.47	13.81	1.69	0.04	n.a.	n.a.	n.a.	n.a.	100	FEEA	-	2
	23.32m-9	49.00	0.73	15.78	8.99	0.16	9.56	13.83	1.75	0.02	0.05	0.10	0.02	0.01	100	TAU	-	1

Probe	Si	Ti	Al	Fe	Mn	Mg	Ca	Na	K	P	S	F	Cl
TAU	Wollast-BL8	Rutile-BL8	BIR1G-BLG1	Fayalite	PuMn -BL8	Spinel-BL8	Wollast-BL8	Jadeite-BL7	Orthoclase-BL7	P K4	Pyrite-BL8	Fluorite	NaCl -BLOwn
FEEA	Quatrz glass	Rutile	Corundum	Metallic Fe	Metallic Mn	Periclase	Wollastonite	Albite	Orthoclase	n.a.	n.a.	n.a.	n.a.

Table 10: Calibration Standard used at Tephrochronology Analytical Unit (TAU) at the Grant Institute, University of Edinburgh (Cameca SX 100) and Facility of Earth & Environmental Analysis (FEEA) at the University of St Andrews (JEOL JXA 800).

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