Table S1. Major element oxide and trace element concentrations for glasses recovered during IODP Expedition 352.

Hole	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B
Sample	6R-1 21/22	9G	9G	9G	10R-1 119/123	12R-2 67/69	12R-2 67/69	12R-2 67/68	19R-1 14/15	19R-1 15/17	19R-1 34/36	19R-1 74/77	19R-1 75/78	19R-1 76/79	20R-1 53/54	20R-1 53/54	20R-1 53/54	22R-1 58/60
[1]Depth	127.0	140.0	140.0	140.0	145.3	165.8	165.8	165.8	226.5	226.7	227.0	227.3	227.4	227.4	232.2	232.2	232.2	242.0
Rock type	U-FAB	U-FAB	U-FAB	U-FAB	U-FAB	U-FAB	U-FAB	U-FAB	FAB And	FAB And	FAB And	FAB And	FAB And	FAB And	N-FAB	N-FAB	N-FAB	N-FAB
lab	A	A	B	C	C	A	B	C	A	B	B	B	A	C	A	C	B	A
SiO_2	52.24	52.44	51.98	52.50	53.66	51.81	52.11	52.64	58.94	59.03	58.75	59.08	58.58	59.43	51.64	51.28	51.40	51.62
TiO_2	0.93	0.93	0.93	0.94	0.89	0.57	0.56	0.57	1.02	1.01	0.99	1.01	1.01	1.01	1.00	0.98	0.98	0.94
Al_2O_3	13.37	13.72	13.86	13.64	14.11	14.86	14.60	15.02	11.96	11.69	11.62	11.94	12.23	12.52	13.86	13.89	13.27	13.97
FeO*	12.93	12.51	12.78	12.99	12.78	9.05	8.89	9.53	12.21	11.81	11.72	11.80	12.31	12.56	11.97	12.50	11.64	11.66
MnO	0.20	0.20	0.21	0.20	0.20	0.17	0.16	0.17	0.22	0.22	0.21	0.21	0.20	0.21	0.20	0.22	0.21	0.20
MgO	6.23	6.53	6.37	6.70	6.47	8.74	8.63	8.55	3.24	3.38	3.41	3.58	3.58	3.62	7.17	7.32	7.27	7.47
CaO	10.72	10.94	10.94	10.75	11.18	13.17	12.80	13.21	7.87	7.73	7.70	7.97	8.14	8.39	11.42	11.28	11.02	11.73
Na_2O	2.31	2.08	2.14	2.23	2.07	1.59	1.56	1.54	2.67	2.68	2.54	2.61	2.61	2.81	2.02	2.15	2.03	1.99
K_2O	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.03	0.10	0.10	0.10	0.09	0.19	0.09	0.03	0.04	0.03	0.03
[2]P_2O_5	0.06	0.07	0.020	0.09	0.01	0.04	0.050	0.00	0.21	0.204	0.192	0.202	0.10	0.11	0.06	0.11	0.076	0.06
Cl	205	233	211			181	76		3193	3091	3080	2951	2965		478		426	458
S	1386	1318	1225			862	811		*669*	761	734	821	776		1203		1072	1135
Total	99.19	99.62	99.41	100.09	101.40	100.12	99.47	101.26	98.82	98.23	97.61	98.88	99.33	100.75	99.53	99.75	98.08	99.83
[3]n	6	38	228	15	17	9	11	11	24	23	41	35	8	23	6	14	20	6
[4]F			102				62			305	300	290					89	
[4]Cl			252				101			2958	2881	2822					431	
[4]S			1171				776			768	731	763					1076	
V	353	373				271			187				186		348			360
Cr	19	19				236			43				43		79			125
Cs	0.010	0.009				0.006			0.049				0.022		0.005			0.003
Rb	0.72	0.66				0.39			1.62				1.46		0.45			0.45
Ba	7.23	7.36				4.42			17.04				15.48		4.90			4.80
U	0.023	0.021				0.015			0.076				0.066		0.017			0.017
Th	0.082	0.087				0.055			0.253				0.278		0.072			0.067
Nb	1.059	0.997				0.618			3.220				3.215		0.849			0.814
La	1.340	1.394				0.909			4.330				4.487		1.229			1.150
Ce	4.45	4.48				2.74			15.49				14.36		3.73			3.62
Pb	0.237	0.248				0.150			0.472				0.434		0.165			0.167
Pr	0.835	0.817				0.513			2.728				2.777		0.753			0.731
Nd	4.60	4.66				3.05			15.59				16.42		4.67			4.48
Sr	56.4	59.9				49.8			54.0				55.3		45.8			46.2
Zr	40.3	37.1				23.7			140.6				159.1		45.6			42.1
Hf									4.248									
Sm	1.786	1.858				1.266			6.140				6.559		2.025			1.924
Eu	0.717	0.758				0.506			1.910				2.044		0.756			0.733
Gd	2.983	2.883				1.992			8.872				10.075		3.575			3.361
Tb	0.580	0.565				0.386			1.738				1.980		0.668			0.625
Dy	4.141	4.029				2.803			11.918				13.851		4.682			4.358
Ho	0.944	0.919				0.619			2.694				3.099		1.098			1.028
Y	25.83	25.34				17.13			75.90				88.25		28.20			26.07
Er	2.802	2.889				1.938			8.092				9.811		3.284			3.047
Tm	0.446	0.426				0.301			1.249				1.512		0.532			0.496
Yb	2.972	2.922				1.946			8.764				9.700		3.364			3.162
Li	6.95	6.46				4.48			13.38				10.10		5.38			5.60
Lu	0.474	0.440				0.311			1.240				1.544		0.558			0.522
[2]n	8	9				6			5				6		5			5

Major element, S and Cl data are by electron microprobe. Trace element data are by laser ablation inductively coupled plasma mass spectrometry except where otherwise noted. FeO* = total Fe as FeO. Oxide data are in wt.%. Element data are in ppm.

[1]in meters below seafloor

[2]Labs A and C by electron microprobe, Lab B by secondary ion mass spectrometry

[3]number of individual analyses averaged to produce listed concentrations

[4]Secondary ion mass spectrometry data. Standard data from Shimizu et al. (2015).

[5]from GEOREM database ; Jochum et al., 2005, Geostandards and Geoanalytical Research 29, 333-338.

[6]from Kemner et al., 2015, Geochemistry Geophysics Geosystems, 16, doi:10.1002/2015GC005884. 2015GC005884.

Hole	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B
Sample	22R-1 58/60	22R-1 60/62	23R-1 72/75	23R-1 76/78	23R-1 76/78	24R-1 1/4	24R-1 14/17	24R-1 18/20	24R-1 29/31	24R-1 33/35	24R-1 33/36	24R-1 36	24R-1 42/54	24R-1 48/50	24R-1 49/50	26R-1 15/17	26R-1 18/20	30R-1 19/21
Depth	242.0	242.0	246.8	246.9	246.9	251.2	251.2	251.3	251.4	251.4	251.4	251.4	251.6	251.6	251.6	270.6	270.7	309.7
Rock type	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	E-FAB
lab	B	C	C	A	B	C	B	B	A	B	C	A	C	A	B	A	B	A
SiO_2	51.55	52.35	51.97	51.68	51.44	51.89	51.81	51.36	51.79	52.08	51.88	51.66	51.30	51.61	52.08	51.78	51.67	52.64
TiO_2	0.93	0.93	0.95	0.92	0.91	0.92	0.91	0.90	0.95	0.92	0.96	0.97	0.93	0.95	0.93	0.92	0.92	1.06
Al_2O_3	13.51	14.19	13.89	14.10	13.54	14.01	13.34	13.55	13.85	13.69	13.89	13.83	13.72	13.43	13.60	13.92	13.85	14.45
FeO*	11.34	12.23	12.35	11.60	11.14	11.98	11.90	11.07	11.87	11.22	12.40	11.84	12.20	11.89	11.45	10.77	10.30	10.77
MnO	0.20	0.18	0.22	0.19	0.21	0.24	0.20	0.20	0.20	0.20	0.20	0.20	0.23	0.22	0.20	0.21	0.18	0.19
MgO	7.62	7.32	7.60	7.64	7.67	7.80	6.87	7.68	7.35	7.37	7.49	7.37	7.18	7.02	7.33	7.40	7.57	5.16
CaO	11.38	11.86	11.46	11.78	11.40	11.54	10.83	11.39	11.57	11.33	11.24	11.58	11.43	11.18	11.25	11.82	11.82	9.43
Na_2O	1.99	1.95	2.09	1.80	1.97	2.03	2.08	1.92	2.01	1.91	2.06	1.98	2.06	2.22	1.95	2.31	1.96	2.69
K_2O	0.03	0.03	0.03	0.03	0.02	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.14
$^2P_2O_5$	0.072			0.06	0.070		0.069	0.070	0.06	0.069		0.06		0.06	0.072	0.06	0.082	0.09
Cl	426			407	410		252	402	432	415		443		474	426	1552	1483	1414
S	1049			1014	1024		1183	973	1085	1062		1142		1358	1067	1010	854	602
Total	98.76	101.05	100.55	99.93	98.50	100.44	98.19	98.31	99.82	98.95	100.15	99.68	99.09	98.79	99.04	99.49	98.62	96.82
n	21	13	15	6	19	15	39	18	6	21	15	5	15	5	29	10	19	11
F	84				80		79	92		79					84		95	
Cl	398				372		368	318		370					398		1397	
S	1021				961		953	912		952					1025		783	
V				326					339			402		409		328		349
Cr				125					103			116		113		262		
Cs				0.005					0.006			0.007		0.005				0.036
Rb				0.41					0.46			0.49		0.48		0.44		1.73
Ba				4.48					4.70			5.19		5.00		4.70		23.56
U				0.016					0.017			0.016		0.017		0.017		0.042
Th				0.066					0.065			0.063		0.061		0.063		0.183
Nb				0.770					0.806			0.807		0.792		0.854		2.060
La				1.136					1.155			1.147		1.092		1.214		2.390
Ce				3.42					3.64			3.88		3.91		4.24		6.29
Pb				0.146					0.168			0.186		0.157		0.154		0.353
Pr				0.697					0.712			0.745		0.715		0.784		1.141
Nd				4.29					4.33			4.54		4.23		4.79		6.50
Sr				44.2					44.0			47.8		47.6		48.6		99.4
Zr				41.8					41.4			38.5		36.8		40.5		53.0
Hf														1.178		1.224		1.722
Sm				1.866					1.867			1.916		1.790		2.022		2.456
Eu				0.713					0.718			0.733		0.734		0.759		0.958
Gd				3.337					3.275			3.030		3.044		2.962		3.716
Tb				0.614					0.602			0.605		0.586		0.593		0.651
Dy				4.316					4.253			4.296		4.052		4.204		5.008
Ho				1.022					1.001			0.960		0.915		0.917		1.059
Y				26.09					25.42			27.35		26.47		26.50		31.23
Er				3.045					2.978			3.058		2.844		2.978		3.460
Tm				0.492					0.483			0.471		0.425		0.475		0.514
Yb				3.123					3.086			3.034		3.074		2.950		3.528
Li				5.45					5.13			5.73		5.29		5.37		6.40
Lu				0.518					0.503			0.473		0.456		0.464		0.511
n				5					5			6		5		5		5

Hole	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1440B	U1441A	U1441A	U1441A	U1439A
Sample	30R-1 19/21	30R-1 19/22	31R-1 63/68	31R-1 70/71	31R-1 69/73	31R-1 72/73	31R-1 73/75	31R-1 77/78	31R-1 78/79	31R-1 83/85	31R-1 83/84	31R-1 82/85	31R-1 87/89	32R-4 61/63	10R-2 56/57	18R-1 21/22	18R-1 22/26	20X-CC 10/14
Depth	309.7	309.7	319.8	319.9	319.9	319.9	319.9	320.0	320.0	320.1	320.1	320.1	320.1	330.0	85.1	160.9	160.9	179.5
Rock type	E-FAB	E-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	N-FAB	HSB
lab	B	C	A	A	C	B	B	C	A	A	B	C	B	A	C	B	A	C
SiO_2	53.99	54.27	51.56	51.52	51.61	51.09	51.59	51.50	51.11	51.59	51.57	51.83	51.32	51.69	51.71	51.67	51.73	56.88
TiO_2	1.09	1.09	0.99	0.99	1.00	0.98	0.98	0.99	0.98	1.00	0.99	0.99	1.01	0.94	0.84	0.84	0.84	0.20
Al_2O_3	14.38	14.98	14.15	14.13	14.14	13.67	13.65	14.06	14.30	14.13	13.79	14.13	13.67	13.90	14.09	13.76	14.15	14.04
FeO*	10.04	10.74	11.20	11.19	11.69	10.86	10.67	11.63	11.78	11.12	10.82	11.60	10.85	12.18	11.63	10.84	11.10	7.23
MnO	0.19	0.21	0.18	0.19	0.21	0.20	0.19	0.21	0.19	0.18	0.19	0.22	0.20	0.20	0.23	0.19	0.20	0.13
MgO	5.10	5.00	7.43	7.44	7.54	7.58	7.36	7.59	7.35	7.44	7.56	7.62	7.60	7.43	8.04	7.90	7.86	7.36
CaO	9.31	9.69	11.98	11.96	11.70	11.59	11.53	11.69	11.10	11.95	11.59	11.62	11.62	11.41	11.77	11.64	12.17	9.28
Na_2O	2.39	2.63	1.83	1.94	2.02	1.93	1.90	2.00	2.07	1.91	1.91	2.02	1.93	2.18	1.89	1.82	1.83	1.77
K_2O	0.14	0.14	0.04	0.05	0.05	0.05	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.57
$^2P_2O_5$	0.110		0.07	0.07		0.085	0.085		0.07	0.07	0.085		0.085	0.07		0.064	0.05	
Cl	1371		647	633		599	601		646	668	651		607	454		343	387	
S	275		1084	1073		1025	1046		1119	1103	1069		1039	1231		951	1037	
Total	96.92	98.75	99.61	99.64	99.96	98.18	98.16	99.72	99.17	99.61	98.70	100.07	98.48	100.19	100.23	98.87	100.11	97.46
n	19	15	8	5	14	15	17	13	8	6	14	15	9	5	15	17	6	15
F	146					102	102				101		102		76	76		
Cl	1360					594	594				595		597		329	329		
S	301					1035	1036				1024		1051		931	931		
V				354						370							328	
Cr			162	162					158	164							96	
Cs			0.009	0.011					0.028	0.009							0.005	
Rb			0.69	0.69					0.73	0.64							0.39	
Ba			7.59	7.38					7.25	7.15							4.97	
U			0.021	0.021					0.019	0.020							0.014	
Th			0.088	0.099					0.078	0.090							0.071	
Nb			1.095	1.081					1.001	1.040							0.819	
La			1.561	1.533					1.414	1.494							1.167	
Ce			4.64	4.55					4.53	4.60							3.42	
Pb			0.243	0.222					0.208	0.205							0.133	
Pr			0.881	0.889					0.798	0.880							0.667	
Nd			5.36	5.39					4.85	5.31							4.06	
Sr			56.2	55.6					51.9	54.9							48.8	
Zr			48.5	48.9					42.8	47.3							36.1	
Hf			1.588	1.400					1.378									
Sm			2.119	2.227					2.028	2.186							1.683	
Eu			0.800	0.815					0.753	0.780							0.682	
Gd			3.453	3.633					3.238	3.467							2.842	
Tb			0.697	0.676					0.602	0.666							0.556	
Dy			4.885	4.895					4.422	4.783							4.038	
Ho			1.075	1.102					0.970	1.045							0.898	
Y			30.61	31.23					27.13	30.33							25.57	
Er			3.472	3.613					3.030	3.369							2.831	
Tm			0.496	0.515					0.439	0.519							0.446	
Yb			3.457	3.478					2.994	3.306							2.800	
Li			5.73	5.75					5.56	5.64							4.82	
Lu			0.538	0.543					0.454	0.524							0.462	
n			4	7					5	6							4	

Hole	U1439A	U1439A	U1439A	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C
Sample	21X-1 42/44	21X-CC 22/25	21X-CC 29/31	2R-1 58/59	2R-3 0/2	3R-1 79/82	3R-2 49/50	3R-3 102/106	3R-4 110/112	3R-4 109/112	4R-1 1/3	5R-1 66/68	5R-1 77/79	5R-1 131/133	5R-2 1/3	5R-2 17/20	5R-2 48/50	6R-1 54/58
Depth	182.9	183.3	183.4	182.6	184.8	192.6	193.7	195.7	197.2	197.2	202.0	212.1	212.2	212.7	212.9	213.4	213.4	221.7
Rock type	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB
lab	C	A	C	C	B	B	B	B	B	C	A	B	C	C	C	A	B	B
SiO_2	59.94	61.38	61.83	60.44	61.58	59.72	60.26	60.11	59.01	57.86	63.83	59.73	61.98	61.96	60.17	60.57	61.92	60.13
TiO_2	0.22	0.22	0.27	0.26	0.20	0.27	0.27	0.23	0.26	0.27	0.22	0.21	0.22	0.22	0.22	0.20	0.21	0.20
Al_2O_3	13.86	16.34	14.61	18.57	17.80	13.93	14.17	13.59	13.52	12.97	18.05	13.78	14.90	14.65	14.28	14.49	15.25	13.81
FeO*	6.84	6.23	5.91	4.78	4.74	5.92	5.88	6.19	6.19	6.85	5.42	6.24	6.68	6.77	6.53	6.57	6.13	6.29
MnO	0.13	0.09	0.13	0.05	0.08	0.11	0.11	0.11	0.12	0.13	0.07	0.12	0.09	0.11	0.11	0.11	0.10	0.12
MgO	5.61	2.21	4.65	0.88	1.18	5.86	5.52	5.40	6.24	7.97	1.07	4.61	4.29	4.70	4.47	4.69	2.69	4.49
CaO	8.19	6.82	7.61	6.03	6.03	7.91	7.96	8.01	7.99	8.38	5.89	8.23	8.62	8.49	8.20	8.41	7.13	8.08
Na_2O	2.21	2.68	2.78	3.19	2.58	2.79	2.74	2.45	2.54	2.12	2.21	2.66	2.54	2.45	2.18	2.68	2.66	2.44
K_2O	0.59	0.62	0.55	0.88	0.72	0.45	0.46	0.54	0.44	0.46	0.46	0.56	0.65	0.64	0.59	0.58	0.59	0.55
$^2P_2O_5$		0.04				0.056	0.056	0.048	0.053		0.06	0.043				0.03	0.045	0.043
Cl		926			896	665	660	489	695		905	594				585	686	587
S		20			28	46	15	19	22		89	27				51	43	39
Total	97.59	96.72	98.34	95.07	95.00	97.10	97.49	96.73	96.43	97.00	97.38	96.25	99.99	100.00	96.74	98.39	96.80	96.23
n	15	7	17	14	13	12	14	17	15	15	2	14	15	15	15	5	18	17
F						116	116	99	106			93					107	93
Cl						699	705	519	653			575					643	573
S						11	10	13	15			18					20	18
V		125									92					173		
Cr		20									22					272		
Cs		1.209									0.981					0.683		
Rb		31.19									23.40					17.75		
Ba		50.74									34.62					31.69		
U		0.234									0.136					0.123		
Th		0.244									0.131					0.132		
Nb		1.091									0.760					0.656		
La		1.861									1.212					1.112		
Ce		4.06									2.79					2.78		
Pb		2.797									1.725					1.582		
Pr		0.533									0.409					0.404		
Nd		2.36									1.73					1.90		
Sr		182.9									110.5					130.0		
Zr		42.0									29.2					33.7		
Hf											0.762							
Sm		0.554									0.453					0.566		
Eu		0.199									0.153					0.200		
Gd		0.607									0.618					0.694		
Tb		0.099									0.087					0.122		
Dy		0.714									0.624					0.851		
Ho		0.165									0.127					0.189		
Y		4.43									4.19					5.36		
Er		0.499									0.421					0.590		
Tm		0.083									0.072					0.089		
Yb		0.653									0.517					0.682		
Li		14.00									7.62					9.44		
Lu		0.119									0.090					0.110		
n		2									4					8		

Hole	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C
Sample	6R-1 91/93	6R-1 91/93	7R-1 8/9	7R-2 95/96	8R-1 112/114	8R-1 129/130	14R-1 101/102	16R-1 33/34	16R-2 79/80	19R-2 93/94	19R-2 97/100	19R-4 84/87	19R-4 87/90	20R-1 92/93	20R-1 99/101	20R-1 101/104
Depth	222.1	222.1	231.1	233.5	242.0	242.1	286.1	300.0	301.8	331.2	331.3	333.8	333.9	339.4	339.4	339.5
Rock type	HSB	HSB	HSB	HSB	HSB	HSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB
lab	A	C	B	C	A	B	B	A	B	C	B	A	B	C	A	A
SiO_2	60.88	59.51	59.35	60.40	60.11	60.35	59.00	63.22	57.22	57.49	57.72	57.26	57.68	56.80	56.56	57.40
TiO_2	0.20	0.21	0.20	0.23	0.23	0.24	0.32	0.31	0.32	0.35	0.34	0.34	0.33	0.38	0.36	0.37
Al_2O_3	14.13	14.12	13.59	14.22	13.26	13.03	14.18	17.55	13.71	14.17	14.22	14.38	13.85	14.00	14.11	13.84
FeO*	6.85	6.31	6.27	5.80	6.72	6.44	6.13	5.35	6.21	6.65	6.22	6.49	6.27	6.73	6.71	7.30
MnO	0.12	0.11	0.11	0.09	0.11	0.13	0.12	0.08	0.13	0.11	0.12	0.12	0.12	0.11	0.12	0.14
MgO	4.35	4.36	4.76	3.77	6.62	6.10	6.53	1.60	6.91	7.31	6.21	7.33	7.18	7.60	7.75	7.14
CaO	7.90	8.21	8.12	7.72	8.27	7.90	8.96	5.57	9.19	9.51	9.52	9.73	9.29	9.95	10.10	9.56
Na_2O	2.58	2.41	2.52	2.61	2.43	2.27	2.15	2.42	2.24	2.12	2.23	2.23	2.14	2.00	2.21	2.28
K_2O	0.50	0.61	0.55	0.70	0.48	0.47	0.31	0.22	0.28	0.31	0.29	0.31	0.28	0.29	0.27	0.22
$^2P_2O_5$	0.02		0.043		0.04	0.047	0.053	0.06	0.054		0.058	0.04	0.057		0.04	0.05
Cl	647		558		548	623	443	647	333		419	487	436		455	510
S	60		26		48	60	42	81	40		45	51	23		61	35
Total	97.59	95.84	95.58	95.55	98.34	97.03	97.81	96.46	96.30	98.01	96.99	98.28	97.25	97.85	98.29	98.36
n	8	15	18	15	6	10	13	4	16	25	17	7	18	20	7	7
F			91			97	110		110		118		117			
Cl			562			542	400		403		432		426			
S			18			13	28		28		34		33			
V	167				156			115				150			186	171
Cr	46				244			201				241			355	325
Cs	0.676				0.482			0.042				0.074			0.069	0.109
Rb	17.13				11.68			2.78				3.70			3.75	3.58
Ba	35.33				25.59			11.40				14.51			16.08	14.62
U	0.120				0.108			0.031				0.044			0.054	0.044
Th	0.147				0.153			0.028				0.046			0.071	0.089
Nb	0.716				0.575			0.317				0.466			0.591	0.561
La	1.280				1.254			0.588				0.780			1.160	1.118
Ce	2.93				2.90			1.66				2.48			3.36	3.04
Pb	1.508				1.194			0.645				0.718			0.875	0.781
Pr	0.472				0.471			0.303				0.412			0.590	0.546
Nd	2.32				2.35			1.64				2.06			3.14	3.08
Sr	146.0				121.4			78.7				109.1			142.3	138.8
Zr	41.6				35.0			20.2				25.0			37.6	38.3
Hf	1.218							0.570								1.100
Sm	0.630				0.736			0.470				0.716			1.015	1.102
Eu	0.221				0.258			0.216				0.271			0.412	0.404
Gd	0.875				0.991			0.660				0.935			1.484	1.600
Tb	0.132				0.163			0.151				0.160			0.260	0.265
Dy	1.018				1.108			0.857				1.047			1.783	1.665
Ho	0.216				0.241			0.181				0.229			0.384	0.469
Y	6.60				6.90			5.53				6.48			10.39	11.49
Er	0.760				0.761			0.549				0.682			1.161	1.348
Tm	0.118				0.111			0.093				0.103			0.180	0.219
Yb	0.718				0.813			0.560				0.695			1.123	1.272
Li	8.95				7.59			2.72				5.18			6.10	5.69
Lu	0.139				0.129			0.087				0.104			0.175	0.195
n	5				6			10				3			5	5

Hole	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C
Sample	20R-1 106/111	20R-2 38/39	22R-1 57/59	23R-1 91/93	28R-1 49/51	28R-1 107/108	28R-2 93/95	29R-1 116/117	29R-4 105/106	29R-4 113/117	29R-4 118/120	29R-6 15/17	30R-1 4/5	30R-2 80/83	31R-1 8/9	31R-1 46/49
Depth	339.6	340.3	348.9	359.0	407.3	407.9	409.0	417.7	421.6	421.7	421.7	423.4	426.0	428.5	436.2	436.6
Rock type	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB
lab	B	B	B	B	B	C	A	B	B	A	C	B	A	B	B	C
SiO_2	56.33	55.94	57.06	56.97	55.48	55.95	56.88	57.24	57.81	57.02	57.60	59.08	57.75	56.76	57.30	57.50
TiO_2	0.36	0.35	0.33	0.35	0.26	0.26	0.28	0.29	0.26	0.27	0.27	0.29	0.26	0.26	0.26	0.25
Al_2O_3	13.48	13.34	13.52	13.49	13.81	13.98	14.40	13.72	13.80	14.36	14.14	15.85	14.09	13.53	13.73	14.20
FeO*	6.38	6.51	6.52	6.49	6.23	6.23	6.72	6.21	6.13	6.35	6.37	6.06	6.50	6.13	6.09	6.24
MnO	0.13	0.14	0.13	0.13	0.12	0.15	0.14	0.13	0.12	0.12	0.13	0.12	0.12	0.13	0.12	0.14
MgO	7.52	7.93	7.89	7.57	8.81	9.07	6.98	7.39	7.23	7.22	7.27	4.05	7.21	7.58	7.47	7.27
CaO	9.92	9.63	9.62	9.67	9.87	9.78	9.88	9.49	9.47	9.96	9.68	8.41	8.87	9.44	9.31	9.57
Na_2O	2.12	2.18	2.04	2.05	2.02	1.92	2.29	2.04	1.97	2.27	1.91	2.23	2.18	2.12	2.05	1.95
K_2O	0.26	0.26	0.26	0.26	0.28	0.31	0.26	0.32	0.31	0.34	0.33	0.36	0.27	0.31	0.33	0.34
$^2P_2O_5$	0.059	0.058	0.059	0.059	0.055		0.05	0.046	0.047	0.04		0.055	0.03	0.047	0.046	
Cl	450	436	454	436	616		673	480	500	526		596	523	492	461	
S	101	67	62	68	113		82	75	47	92		51	36	60	49	
Total	96.61	96.40	97.48	97.09	97.02	97.65	97.95	96.93	97.20	98.01	97.70	96.56	97.32	96.36	96.75	97.45
n	15	12	21	15	9	17	7	4	17	6	20	19	6	20	20	20
F	122	119	119	122	120			90	92			121		92	91	
Cl	449	425	430	436	586			487	478			607		462	456	
S	44	42	43	41	32			46	46			54		42	42	
V							176			172			176			
Cr							369			271			278			
Cs							0.092			0.152			0.193			
Rb							4.11			5.54			6.30			
Ba							17.52			18.12			21.10			
U							0.047			0.052			0.059			
Th							0.070			0.066			0.070			
Nb							0.485			0.501			0.512			
La							1.154			0.823			0.879			
Ce							3.07			2.15			2.38			
Pb										0.796			0.935			
Pr							0.504			0.374			0.405			
Nd							2.51			2.00			2.04			
Sr							156.4			111.5			119.4			
Zr							30.9			31.4			28.2			
Hf							0.870						0.818			
Sm							0.762			0.701			0.718			
Eu							0.320			0.256			0.255			
Gd							0.952			1.047			0.918			
Tb							0.168			0.188			0.156			
Dy							1.160			1.295			1.188			
Ho							0.250			0.283			0.215			
Y							7.58			8.07			7.09			
Er							0.782			0.887			0.725			
Tm							0.116			0.136			0.125			
Yb							0.812			0.905			0.815			
Li							6.30			7.30			7.49			
Lu							0.125			0.147			0.120			
n										6			4			

Hole	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C	U1439C
Sample	31R-1 55/58	31R-2 129/131	31R-4 23/24	32R-3 93/95	32R-3 141/143	32R-4 61/63	33R-1 114/120	33R-1 124/126	35R-1 48/51	35R-2 113/114	35R-3 37/38	35R-3 119/120	35R-4 106/108	36R-1 64/66	36R-1 87/88	38R-1 91/92
Depth	436.7	438.6	440.4	449.3	449.8	450.0	455.0	456.8	465.8	469.3	468.5	469.3	471.0	475.7	476.0	495.5
Rock type	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB
lab	A	B	B	B	C	A	A	C	B	B	C	B	A	B	C	B
SiO_2	58.37	57.08	57.16	56.90	57.84	58.29	56.25	56.87	57.76	58.15	56.69	56.40	57.56	54.43	56.61	56.91
TiO_2	0.28	0.27	0.27	0.26	0.29	0.27	0.28	0.28	0.26	0.27	0.30	0.27	0.26	0.32	0.32	0.31
Al_2O_3	14.52	13.68	13.70	13.65	14.36	14.52	15.31	15.41	13.95	15.00	15.09	14.35	14.93	13.39	14.38	15.73
FeO*	6.68	6.15	6.14	6.14	6.36	6.62	5.84	5.70	6.08	5.74	5.95	5.71	4.95	6.90	7.37	5.87
MnO	0.12	0.13	0.12	0.13	0.14	0.12	0.11	0.12	0.12	0.11	0.10	0.12	0.14	0.14	0.10	0.12
MgO	7.27	7.61	7.49	7.34	7.22	7.42	6.75	6.88	7.11	6.83	6.02	7.28	6.76	8.21	7.78	5.08
CaO	9.79	9.37	9.42	9.32	9.57	9.63	9.90	9.95	9.37	9.81	9.74	9.48	9.14	9.86	10.31	9.06
Na_2O	2.30	2.08	2.07	2.05	1.99	2.24	2.21	2.21	1.99	2.18	2.33	2.36	2.37	1.96	1.95	2.35
K_2O	0.31	0.31	0.31	0.31	0.35	0.30	0.31	0.31	0.31	0.29	0.32	0.29	0.21	0.24	0.23	0.38
$^2P_2O_5$	0.04	0.046	0.047	0.047		0.03	0.04		0.047	0.052	0.05	0.053	0.03	0.053		0.056
Cl	473	459	495	454		509	526		443	535		519	425	494		564
S	67	68	55	66		162	44		55	61		65	116	101		44
Total	99.73	96.77	96.79	96.20	98.12	99.52	97.06	97.75	97.04	98.49	96.58	96.37	96.39	95.56	99.07	95.92
n	24	17	20	15	43	25	10	13	27	14	13	19	7	26	15	25
F		90	92	92					91	107		115		108		119
Cl		456	464	462					456	485		544		449		564
S		41	41	42					39	21		28		71		37
V	224					172	152						163			
Cr	236					362	208						258			
Cs	0.135					0.080	0.100						0.115			
Rb	6.43					6.47	4.88						4.97			
Ba	25.20					22.00	20.68						21.32			
U	0.051					0.056	0.048						0.050			
Th	0.056					0.067	0.054						0.058			
Nb	0.570					0.608	0.467						0.495			
La	0.826					1.000	0.873						0.909			
Ce	2.24					2.87	2.50						2.71			
Pb	0.869					0.673	0.842						0.930			
Pr	0.370					0.424	0.427						0.451			
Nd	1.91					2.24	2.12						2.26			
Sr	148.0					123.0	133.3						135.2			
Zr	29.8					35.4	29.6						30.2			
Hf	0.764					0.935	0.811						0.837			
Sm	0.677					0.735	0.653						0.774			
Eu	0.248					0.250	0.304						0.293			
Gd	0.924					0.966	1.018						1.084			
Tb	0.183					0.179	0.163						0.172			
Dy	1.190					1.290	1.225						1.230			
Ho	0.253					0.285	0.244						0.256			
Y	7.57					8.12	7.22						7.24			
Er	0.782					0.841	0.766						0.815			
Tm	0.120					0.102	0.131						0.120			
Yb	0.831					0.764	0.796						0.886			
Li	11.60					12.40	6.64						6.84			
Lu	0.134					0.119	0.120						0.125			
n	9					4	4						5			

Hole	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A
Sample	10R-3 69/70	10R-3 82/90	10R-3 85/87	11R-1 31/33	11R-1 95/97	12R-1 8/9	12R-1 12/14	13R-1 1/3	15R-1 0/2	15R-1 34/36	15R-1 89/91	16R-1 71/72	16R-1 91/93	17R-1 61/65	17R-1 63/65	18R-1 57/59	19R-1 7/10	19R-1 17/19	20R-1 36/38
Depth	84.2	84.3	84.3	91.9	92.5	101.3	101.3	111.0	118.7	119.0	119.6	124.2	124.4	131.0	131.0	140.7	150.0	150.1	160.0
Rock type	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB
lab	B	A	C	A	B	B	A	A	C	B	C	C	B	A	B	B	A	B	B
SiO_2	58.69	59.70	58.72	71.65	60.24	60.54	59.43	63.19	56.25	62.09	56.62	59.44	60.77	59.11	59.91	61.31	59.68	59.32	59.37
TiO_2	0.22	0.23	0.23	0.35	0.24	0.23	0.23	0.26	0.15	0.16	0.15	0.19	0.28	0.28	0.27	0.30	0.27	0.27	0.27
Al_2O_3	13.59	14.14	13.91	13.29	13.86	13.76	14.32	16.53	14.76	18.35	14.94	12.65	14.53	14.65	14.14	15.86	14.71	13.88	13.77
FeO*	6.69	7.47	6.82	3.02	6.18	6.29	6.13	5.69	7.03	5.14	7.12	7.03	5.85	5.90	5.87	5.58	6.12	6.04	6.10
MnO	0.13	0.10	0.10	0.05	0.10	0.11	0.11	0.07	0.11	0.08	0.10	0.11	0.11	0.11	0.11	0.09	0.10	0.12	0.11
MgO	6.32	6.00	6.14	0.16	5.14	5.45	5.08	2.06	6.99	1.45	6.64	8.17	5.22	5.37	5.45	2.91	5.63	5.80	5.99
CaO	8.35	7.98	8.56	2.76	8.08	7.96	8.06	5.95	10.23	6.56	10.23	8.03	8.03	8.06	7.89	7.08	8.22	7.90	7.92
Na_2O	2.28	2.36	2.11	3.61	2.58	2.47	2.70	3.27	1.71	2.17	1.56	2.03	2.76	2.65	2.72	2.99	3.00	2.71	2.63
K_2O	0.49	0.45	0.56	1.08	0.54	0.52	0.55	0.67	0.46	0.64	0.47	0.56	0.47	0.49	0.45	0.51	0.48	0.44	0.44
$^2P_2O_5$	0.043	0.05		0.09	0.049	0.049	0.03	0.04					0.056	0.04	0.056		0.04	0.055	0.055
Cl	548	614		1932	598	640	656	966		650			789	733	741	894	822	749	728
S	37	24		5	29	63	4	22		39			26	16	47	18	25	39	27
Total	96.87	98.56	97.15	96.25	97.08	97.46	96.70	97.83	97.70	96.69	97.84	98.21	98.17	96.74	96.94	96.71	98.33	96.62	96.73
n	22	7	19	12	16	11	6	6	10	7	10	20	15	6	16	15	5	16	17
F	90				103	105							118		117			115	115
Cl	545				665	624							981		698			692	688
S	11				9	7							10		10			10	11
V		191		81			160	152						163			151		
Cr		126		14			64	9						254			74		
Cs		0.498		0.908			0.499	0.632						0.356			0.345		
Rb		13.65		27.13			14.08	19.37						10.29			10.79		
Ba		28.58		61.29			29.96	37.13						26.88			26.93		
U		0.143		0.340			0.128	0.208						0.121			0.138		
Th		0.196		0.530			0.161	0.198						0.192			0.201		
Nb		0.617		1.470			0.678	0.905						0.680			0.703		
La		1.416		3.665			1.406	1.746						1.680			1.784		
Ce		3.27		9.07			3.30	4.49						4.06			4.36		
Pb		1.474		3.482			1.484	2.409						1.410			1.430		
Pr		0.487		1.298			0.493	0.592						0.642			0.669		
Nd		2.40		6.20			2.43	2.64						3.19			3.22		
Sr		146.9		186.5			133.8	154.0						180.5			170.7		
Zr		36.7		96.7			39.6	44.0						45.2			48.0		
Hf		1.046																	
Sm		0.690		1.788			0.738	0.726						1.010			0.966		
Eu		0.277		0.539			0.258	0.267						0.348			0.346		
Gd		0.886		2.129			0.957	0.950						1.307			1.229		
Tb		0.148		0.360			0.158	0.153						0.207			0.207		
Dy		0.956		2.365			1.042	1.004						1.404			1.350		
Ho		0.218		0.503			0.233	0.217						0.304			0.290		
Y		6.68		14.57			6.93	5.59						8.54			7.56		
Er		0.725		1.526			0.738	0.645						0.922			0.849		
Tm		0.127		0.237			0.110	0.106						0.139			0.135		
Yb		0.860		1.583			0.780	0.763						0.924			0.898		
Li		8.64		18.35			9.04	10.66						8.02			7.80		
Lu		0.133		0.261			0.131							0.152					
n		5		6			6	4						8			5		

Hole	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A
Sample	20R-1 86/90	21R-1 61/63	21R-2 1/4	21R-2 44/45	22R-1 95/96	22R-1 114/116	23R-1 25/27	24R-1 106/109	25R-1 56/58	26R-1 54/56	26R-1 54/58	26R-2 42/44	26R-2 79/81	27R-1 91/93	29R-1 72/74	29R-1 78/80	30R-2 45/47	30R-4 14/15
Depth	160.5	169.9	170.5	170.9	180.0	180.1	189.0	199.5	208.7	218.4	218.4	219.8	220.1	228.5	247.8	247.9	258.7	260.6
Rock type	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	HSB	LSB	LSB
lab	A	B	A	C	B	B	B	B	B	B	A	B	B	B	C	B	B	B
SiO_2	59.92	60.95	64.58	61.40	61.99	55.53	62.20	56.27	57.78	60.25	60.70	59.75	60.86	61.81	58.94	60.63	56.34	55.47
TiO_2	0.28	0.29	0.23	0.25	0.28	0.19	0.29	0.18	0.24	0.31	0.32	0.28	0.31	0.33	0.21	0.28	0.30	0.34
Al_2O_3	13.90	14.22	17.49	14.75	14.71	14.77	14.66	15.16	14.20	14.70	15.41	14.59	15.02	15.20	14.06	14.93	14.39	15.99
FeO*	6.77	5.76	5.14	5.86	5.56	6.90	5.70	6.97	6.44	6.39	6.49	6.40	6.37	6.06	6.96	5.08	6.76	6.71
MnO	0.12	0.11	0.08	0.09	0.10	0.13	0.10	0.13	0.11	0.13	0.11	0.12	0.11	0.10	0.10	0.08	0.14	0.13
MgO	5.68	4.92	1.26	4.59	3.97	6.28	3.63	5.98	5.79	3.69	3.71	4.63	3.92	3.59	6.22	5.01	7.67	6.09
CaO	7.94	7.48	5.82	7.39	7.24	10.24	6.81	10.18	9.18	7.67	7.90	8.52	8.10	7.49	8.95	7.55	10.50	10.09
Na_2O	2.77	2.93	3.41	3.03	2.91	1.72	2.94	1.67	2.09	2.84	3.10	2.45	2.66	2.93	2.06	3.34	1.80	2.04
K_2O	0.40	0.44	0.61	0.48	0.43	0.42	0.43	0.42	0.38	0.45	0.48	0.38	0.43	0.46	0.64	0.65	0.23	0.26
$^2P_2O_5$	0.06	0.058	0.05		0.059	0.037		0.038	0.046	0.063	0.05	0.056	0.060	0.070		0.075	0.050	0.058
Cl	740	892	1112		975	366	1006	359	539	858	828	734	823	1047		1055	584	661
S	14	22	48		45	61	21	54	61	20	45	55	52	52		37	50	63
Total	97.91	97.25	98.78	97.84	97.36	96.25	96.87	97.04	96.31	96.57	98.37	97.25	97.92	98.15	98.14	97.74	98.24	97.25
n	5	17	6	20	17	15	16	20	19	7	5	21	13	21	22	27	18	14
F		130			137	68		69	92	138		123	133	166		190	104	124
Cl		886			905	371		367	475	795		660	734	958		1335	547	617
S		8			8	39		41	25	19		26	23	23		20	80	92
V	167		149								188							
Cr	114		232								6							
Cs	0.307		0.427								0.327							
Rb	10.67		11.94								9.77							
Ba	26.28		28.14								26.05							
U	0.123		0.117								0.131							
Th	0.178		0.165								0.177							
Nb	0.676		0.659								0.768							
La	1.602		1.473								1.759							
Ce	4.13		3.71								4.65							
Pb	1.373		1.329								1.409							
Pr	0.664		0.553								0.701							
Nd	3.26		2.59								3.42							
Sr	178.5		180.3								189.2							
Zr	43.6		39.3								45.6							
Hf	1.284																	
Sm	0.968		0.787								1.051							
Eu	0.353		0.295								0.379							
Gd	1.138		0.972								1.245							
Tb	0.187		0.163								0.202							
Dy	1.320		1.054								1.347							
Ho	0.272		0.231								0.294							
Y	8.13		6.63								8.39							
Er	0.826		0.682								0.852							
Tm	0.134		0.103								0.134							
Yb	0.772		0.726								0.911							
Li	7.80		8.15								8.68							
Lu	0.139		0.118								0.147							
n	5		6								5							

Hole	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A
Sample	30R-4 45/47	30R-4 47/49	32R-1 39/44	33R-1 71/73	34R-1 33/37	34R-1 40/41	35R-1 6/7	36R-1 0/2	37R-1 20/23	37R-1 30/32	39R-1 28/31	39R-1 35/37	43R-1 130/132	46R-1 26/28	47R-1 52/58	47R-1 57/59	48R-1 92/94	48R-2 16/17
Depth	261.0	261.0	277.0	286.7	296.1	296.2	305.6	315.3	325.3	325.4	344.9	345.0	384.8	413.1	423.1	423.2	433.2	433.9
Rock type	LSB	LSB	LSB	LSB	LSB	LSB	LSB	HK-LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB	LSB
lab	A	B	A	B	A	B	B	B	B	C	A	B	B	B	A	C	B	B
SiO_2	54.88	55.51	55.68	57.23	57.02	57.58	56.85	55.99	56.60	56.47	56.33	55.80	56.89	57.37	54.87	55.27	54.92	54.30
TiO_2	0.34	0.34	0.51	0.35	0.34	0.34	0.34	0.19	0.34	0.38	0.34	0.34	0.36	0.40	0.35	0.38	0.36	0.37
Al_2O_3	16.39	15.85	15.52	15.85	16.43	15.96	15.73	14.65	15.53	16.09	16.17	15.42	15.46	15.49	16.25	16.54	16.04	15.78
FeO*	6.81	6.75	8.20	6.24	6.36	6.22	6.26	7.01	6.48	6.73	6.94	6.69	6.49	6.93	6.88	6.68	6.45	6.49
MnO	0.12	0.13	0.13	0.11	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.12	0.12	0.13	0.12	0.14	0.13	0.13
MgO	6.14	6.06	5.30	5.02	5.13	5.08	5.17	6.85	5.66	5.58	5.85	5.87	5.54	4.94	6.35	6.47	5.92	6.49
CaO	10.34	9.99	9.74	9.08	9.44	9.17	9.17	10.29	9.54	9.58	9.81	9.50	9.26	8.67	9.77	10.54	10.05	10.43
Na_2O	2.29	2.02	2.32	2.50	2.76	2.52	2.53	1.67	2.33	2.38	2.54	2.12	2.39	2.50	2.28	2.20	2.12	2.23
K_2O	0.30	0.26	0.27	0.34	0.37	0.35	0.34	0.41	0.31	0.36	0.29	0.30	0.38	0.38	0.22	0.26	0.24	0.24
$^2P_2O_5$	0.05	0.060	0.06	0.064	0.05	0.063	0.063	0.037	0.065		0.05	0.060	0.066	0.069	0.05		0.059	0.059
Cl	703	632	767	821	811	801	783	398	777		591	618	809	806	596		651	714
S	98	73	113	67	81	54	49	36	52		89	117	63	86	166		149	113
Total	97.74	97.05	97.82	96.88	98.11	97.49	96.65	97.28	97.07	97.70	98.53	96.28	97.05	96.96	97.21	98.48	96.37	96.60
n	6	18	6	20	11	15	12	11	10	20	6	15	15	14	8	20	15	14
F		128		136		135	135	66	137			137	160	155			125	125
Cl		636		768		762	760	357	747			597	773	738			626	664
S		89		54		54	56	43	67			87	82	51			126	127
V	177		229		164						180				199			
Cr	19		24		14						23				92			
Cs	0.070		0.081		0.105						0.097				0.116			
Rb	3.29		3.63		5.33						3.84				4.16			
Ba	15.43		15.77		21.56						16.74				13.76			
U	0.054		0.062		0.080						0.055				0.049			
Th	0.089		0.105		0.099						0.077				0.077			
Nb	0.580		0.715		0.642						0.516				0.583			
La	1.283		1.433		1.314						1.108				1.210			
Ce	3.31		3.99		3.67						3.12				3.50			
Pb	0.759		0.713		1.149						0.797				0.703			
Pr	0.564		0.693		0.588						0.503				0.577			
Nd	3.09		3.71		2.96						2.42				2.78			
Sr	166.6		138.5		155.9						155.8				150.7			
Zr	35.2		40.6		36.7						29.1				30.9			
Hf											0.836				0.840			
Sm	1.024		1.347		0.951						0.846				0.886			
Eu	0.388		0.494		0.358						0.320				0.394			
Gd	1.385		1.844		1.229						1.132				1.190			
Tb	0.249		0.318		0.212						0.185				0.227			
Dy	1.665		2.209		1.352						1.390				1.678			
Ho	0.380		0.496		0.303						0.289				0.352			
Y	10.49		13.92		7.56						8.05				9.65			
Er	1.151		1.546		0.903						0.934				1.066			
Tm	0.178		0.231		0.141						0.134				0.153			
Yb	1.147		1.554		0.957						0.876				1.088			
Li	5.53		5.13		8.12						5.54				8.54			
Lu	0.183		0.242		0.143						0.140				0.159			
n	5		5		5						5				5			

Hole	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A	U1442A
Sample	48R-2 79/83	49R-2 49/51	49R-2 64/67	49R-2 69/72	49R-2 107/108	49R-3 15/17	51R-1 13/15	52R-1 39/43	52R-1 55/57	53R-1 13/15	53R-1 44/46	53R-1 79/81	54R-1 63/68	54R-1 122/124	54R-1 124/127	55R-1 68/72	55R-2 66/70	56R-2 24/27
Depth	434.5	443.7	443.9	444.0	444.3	444.5	461.7	471.7	471.9	481.2	481.6	481.9	491.4	492.0	492.0	501.0	502.0	511.6
Rock type	LSB	LSB	LSB	LSB	LSB	LSB	HK-LSB	HK-LSB	HK-LSB	HK-LSB	HK-LSB	HK-LSB	LSB	LSB	LSB	LSB	LSB	LSB
lab	A	A	B	A	C	B	B	A	B	B	C	B	B	B	A	A	A	A
SiO_2	55.80	56.88	56.80	55.74	56.26	56.68	57.58	57.87	57.87	58.04	57.90	58.27	55.92	56.88	57.26	56.14	56.25	57.00
TiO_2	0.35	0.35	0.34	0.33	0.35	0.33	0.30	0.29	0.29	0.29	0.30	0.29	0.32	0.32	0.30	0.30	0.30	0.32
Al_2O_3	16.32	16.04	15.92	16.14	16.37	16.00	15.70	16.47	15.81	15.82	16.46	15.94	15.52	15.78	16.07	16.33	16.40	15.92
FeO*	7.14	7.34	6.66	7.22	6.83	6.33	5.89	6.00	5.82	5.81	6.13	5.86	6.44	6.47	7.24	6.69	6.60	7.11
MnO	0.12	0.10	0.13	0.12	0.13	0.12	0.11	0.11	0.10	0.11	0.12	0.11	0.13	0.12	0.13	0.12	0.11	0.12
MgO	5.90	5.14	5.55	5.50	5.62	5.49	5.27	5.23	5.15	5.13	5.11	5.13	5.75	5.64	5.42	5.72	5.68	5.20
CaO	9.85	9.16	9.58	9.60	9.67	9.59	8.96	9.25	8.95	8.97	9.00	8.92	9.59	9.58	9.14	9.74	9.83	9.06
Na_2O	2.24	2.35	2.25	2.35	2.30	2.27	2.60	2.91	2.62	2.67	2.65	2.58	2.29	2.25	2.33	2.25	2.28	2.47
K_2O	0.20	0.25	0.29	0.30	0.34	0.31	0.43	0.45	0.42	0.45	0.49	0.43	0.34	0.34	0.29	0.33	0.38	0.28
$^2P_2O_5$	0.04	0.06	0.060	0.06		0.057	0.058	0.04	0.058	0.058		0.057	0.055	0.055	0.05	0.03	0.04	0.06
Cl	642	650	634	666		557	615	622	626	641		629	583	596	576		625	540
S	193	80	79	88		78	33	61	45	54		36	76	83	73		45	43
Total	98.06	97.75	97.65	97.43	97.87	97.26	96.95	98.68	97.16	97.44	98.16	97.65	96.42	97.51	98.31	97.65	97.96	97.58
n	8	8	17	6	20	18	15	9	19	24	20	15	19	19	8	6	6	6
F			128			121	141		140	141		144	119	120				
Cl			605			550	606		602	604		607	554	557				
S			73			74	40		41	41		41	57	55				
V	175	158		181				150							157	171	159	177
Cr	120	65		64				93							12	17	22	14
Cs	0.046	0.067		0.063				0.160							0.132	0.163	0.125	0.155
Rb	2.65	3.81		3.91				5.71							4.79	4.84	4.88	6.20
Ba	13.31	15.74		17.58				22.95							17.72	18.36	17.93	20.79
U	0.052	0.063		0.062				0.091							0.065	0.122	0.064	0.071
Th	0.087	0.105		0.107				0.169							0.087	0.138	0.121	0.093
Nb	0.522	0.554		0.553				0.570							0.489	0.590	0.506	0.507
La	1.249	1.237		1.256				1.579							1.089	1.245	1.320	1.143
Ce	3.19	3.23		3.51				3.71							3.10	3.26	3.03	3.19
Pb	0.808	0.795		0.867				1.126							0.929	0.977	0.876	1.025
Pr	0.571	0.542		0.578				0.586							0.459	0.599	0.510	0.496
Nd	2.97	2.84		2.85				2.90							2.38	2.53	2.67	2.47
Sr	147.0	152.1		163.8				183.1							175.5	173.9	167.3	177.6
Zr	34.3	36.1		33.0				39.1							28.3	30.0	36.7	27.7
Hf	0.942	0.952		0.942											0.725	0.870		0.753
Sm	1.016	0.906		0.964				0.973							0.714	0.890	0.905	0.740
Eu	0.397	0.339		0.354				0.350							0.299	0.359	0.335	0.316
Gd	1.430	1.272		1.236				1.187							0.906	1.035	1.266	0.988
Tb	0.247	0.232		0.206				0.205							0.166	0.210	0.222	0.172
Dy	1.712	1.522		1.522				1.399							1.190	1.250	1.526	1.204
Ho	0.377	0.321		0.327				0.303							0.252	0.301	0.337	0.272
Y	11.08	9.40		9.43				8.48							7.31	7.74	9.59	7.25
Er	1.192	0.995		0.964				0.891							0.787	0.879	1.038	0.772
Tm	0.191	0.157		0.168				0.146							0.114	0.150	0.163	0.122
Yb	1.116	1.026		0.996				0.904							0.744	0.871	1.012	0.774
Li	5.51	5.32		5.50				6.90							5.85	6.40	5.57	4.75
Lu	0.192			0.144				0.142							0.125	0.160	0.170	0.128
n	5	6		5				7								5	5	5

Hole	U1442A	U1442A	U1442A	U1442A	**International standard analyses**							Preferred values			**Internal standard analyses**		
Sample	56R-2 62/94	57R-1 8/10	57R-2 100/102	57R-2 102/104	BCR-2G	BCR-2G	BCR-2G	BHVO-2G	BHVO-2G	VG-A99	VG-A99	[5]BCR-2G	[5]BHVO-2G	[6]VG-A99	FAB1	FAB1	FAB1
Depth	512.0	520.2	522.4	522.4													
Rock type	LSB	LSB	LSB	LSB													
lab	B	B	A	B	A	B	C	A	B	A	C				A	B	C
SiO_2	57.18	55.42	56.27	54.92	54.76 ± 0.58	54.64 ± 0.33	54.39 ± 0.23	50.21 ± 0.40	49.69 ± 0.31	51.15 ± 0.44	50.78 ± 0.40	54.40	49.30	50.75	50.50 ± 0.16	50.00 ± 0.30	50.78 ± 0.25
TiO_2	0.31	0.31	0.29	0.29	2.22 ± 0.05	2.28 ± 0.08	2.30 ± 0.05	2.75 ± 0.04	2.71 ± 0.04	3.94 ± 0.04	4.06 ± 0.05	2.27	2.79	4.14	0.95 ± 0.02	0.94 ± 0.02	0.95 ± 0.03
Al_2O_3	15.92	15.68	16.38	15.80	13.57 ± 0.20	12.97 ± 0.14	13.53 ± 0.12	13.56 ± 0.13	12.93 ± 0.08	12.40 ± 0.17	12.52 ± 0.12	13.40	13.60	12.54	14.81 ± 0.07	13.89 ± 0.14	14.67 ± 0.16
FeO*	6.43	6.20	6.90	6.19	12.36 ± 0.22	12.05 ± 0.22	12.59 ± 0.31	11.41 ± 0.12	10.58 ± 0.13	13.32 ± 0.21	13.11 ± 0.03	12.40	11.30	13.27	11.64 ± 0.05	11.59 ± 0.09	12.02 ± 0.22
MnO	0.12	0.13	0.11	0.12	0.20 ± 0.03	0.19 ± 0.01	0.19 ± 0.08	0.16 ± 0.03	0.17 ± 0.02	0.19 ± 0.01	0.20 ± 0.06	0.19	0.17	0.20	0.19 ± 0.02	0.20 ± 0.02	0.24 ± 0.07
MgO	5.62	6.21	5.93	6.40	3.65 ± 0.07	3.65 ± 0.07	3.58 ± 0.10	7.28 ± 0.07	7.34 ± 0.08	5.15 ± 0.08	5.06 ± 0.11	3.56	7.13	5.19	6.85 ± 0.04	6.95 ± 0.11	6.95 ± 0.12
CaO	9.50	9.90	9.62	9.92	7.08 ± 0.12	6.89 ± 0.11	7.06 ± 0.12	11.00 ± 0.21	10.94 ± 0.10	9.16 ± 0.16	9.11 ± 0.16	7.06	11.40	9.36	11.67 ± 0.01	11.10 ± 0.11	11.47 ± 0.15
Na_2O	2.15	2.17	2.23	2.17	3.14 ± 0.20	3.24 ± 0.09	3.32 ± 0.24	2.33 ± 0.06	2.29 ± 0.07	2.83 ± 0.15	2.62 ± 0.17	3.23	2.40	2.64	2.18 ± 0.03	2.39 ± 0.06	2.36 ± 0.11
K_2O	0.34	0.31	0.26	0.31	1.71 ± 0.05	1.75 ± 0.04	1.71 ± 0.03	0.51 ± 0.01	0.50 ± 0.01	0.81 ± 0.04	0.81 ± 0.02	1.74	0.51	0.84	0.24 ± 0.01	0.22 ± 0.01	0.23 ± 0.02
$^2P_2O_5$	0.056	0.054	0.06	0.053	0.33 ± 0.04	0.30 ± 0.02	0.33 ± 0.10	0.28 ± 0.04	0.22 ± 0.02	0.41 ± 0.06	0.52 ± 0.12	0.37	0.29	0.48	0.08 ± 0.01		0.08 ± 0.06
Cl	606	510	470	515						214 ± 30				220	77 ± 42		
S	48	78	93	58						150 ± 52				150	4 ± 24		
Total	97.69	96.44	98.10	96.23													
n	16	14	8	32	34	13	5	11	31	22	5				6	32	91
F	121	118		118		539 ± 2			408 ± 3								
Cl	568	483		483		94 ± 4			84 ± 6								
S	56	64		70		330 ± 5			158 ± 2								
V			165		403 ± 21			295 ± 12				425	308				
Cr			29		16.0 ± 1.4			259 ± 30				17	293				
Cs			0.118		1.10 ± 0.12			0.10 ± 0.01				1.16	0.10				
Rb			5.41		46 ± 2			10.5 ± 1.5				47	9.2				
Ba			22.53		677 ± 14			131 ± 0.13				683	131				
U			0.072		1.61 ± 0.09			0.43 ± 0.03				1.69	0.40				
Th			0.100		6.20 ± 0.31			1.18 ± 0.04				5.90	1.22				
Nb			0.479		12.7 ± 0.3			20.0 ± 1.86				12.5	18.3				
La			1.229		25.3 ± 0.9			15.0 ± 0.24				24.7	15.2				
Ce			3.16		52.6 ± 1.2			38.1 ± 0.53				53.3	37.6				
Pb			0.993		10.0 ± 0.8			1.80 ± 0.08				11.0	1.70				
Pr			0.482		6.80 ± 0.18			5.32 ± 0.03				6.70	5.35				
Nd			2.50		29.1 ± 0.7			23.7 ± 0.8				28.9	24.5				
Sr			230.8		337 ± 6			410 ± 14				342	396				
Zr			28.4		195 ± 12			179 ± 10				184	170				
Hf			0.857		5.27 ± 0.52			4.02 ± 0.28				4.84	4.32				
Sm			0.845		6.69 ± 0.24			6.30 ± 0.23				6.59	6.10				
Eu			0.319		1.99 ± 0.06			2.14 ± 0.08				1.97	2.07				
Gd			1.068		7.04 ± 0.39			5.78 ± 0.36				6.71	6.16				
Tb			0.175		1.07 ± 0.06			0.91 ± 0.01				1.02	0.92				
Dy			1.273		6.72 ± 0.42			4.94 ± 0.32				6.44	5.28				
Ho			0.262		1.34 ± 0.09			0.97 ± 0.01				1.27	0.98				
Y			7.59		38.0 ± 3.0			26.0 ± 0.4				35.0	26.0				
Er			0.838		3.90 ± 0.27			2.42 ± 0.13				3.70	2.56				
Tm			0.108		0.57 ± 0.06			0.34 ± 0.00				0.51	0.34				
Yb			0.870		3.52 ± 0.18			1.92 ± 0.08				3.39	2.01				
Li			3.85		9.10 ± 0.35			4.0 ± 0.3				9.0	4.4				
Lu			0.143		0.53 ± 0.04			0.34 ± 0.08				0.50	0.28				
n			4		20			2									